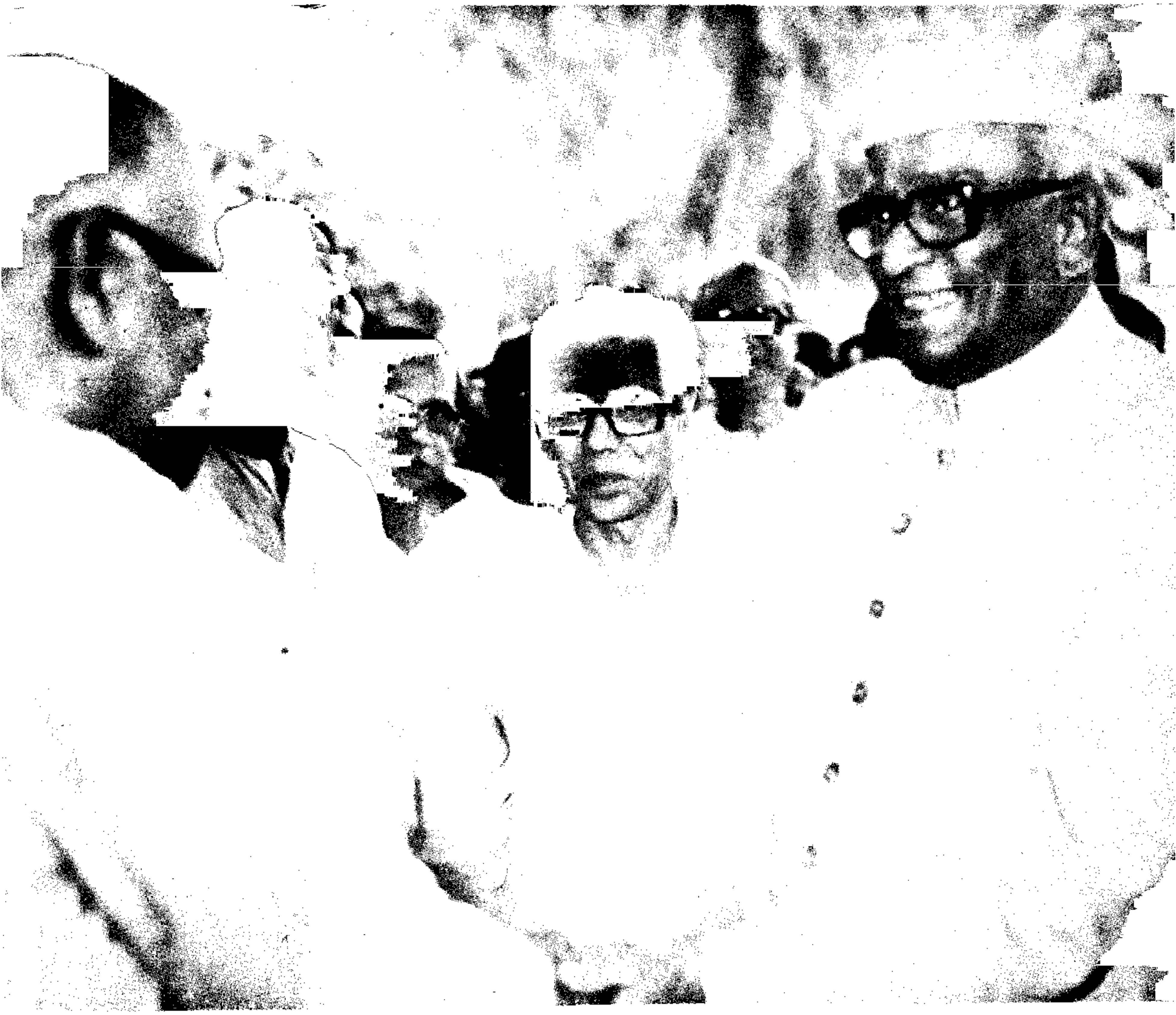
# University News

A FORTNIGHTLY CHRONICLE OF HIGHER EDUCATION & RESEARCH OCTOBER 1, 1980



President Neelam Sanjiva Reddy at the Visva-Bharati

# LATEST FROM STERLING

## Select Books of Jan-Aug 1980

### BIOGRAPHY

| | | | |
|---|---|---|---|
| Charles Fabri : Life and Works | Compiled and edited *by Geza Bethlenfalvy* | | Rs 75 |

### ECONOMICS

| | | | |
|---|---|---|---|
| Rural Development and the Village | *V.M. Rao* | | Rs 40 |
| Union-State Financial Relations in India : With special Reference to Underdeveloped States | *Shailendra Singh* | | Rs 50 |
| University Finances in India : A Case Study of the Kerala University | *E.T. Mathew* | | In Press |
| The Public Sector | *V. Kolesov* | | Rs 60 |
| Problems of Economic Development in the Third World | *K.N. Prasad* | | Rs 135 |

### ART

| | | | |
|---|---|---|---|
| Elora : Art and Culture | *T.V. Pathy* | | Rs 125 |

### HISTORY

| | | | |
|---|---|---|---|
| History of Modern Karnataka | *I.M. Muthanna* | HB<br>PB | Rs 50<br>Rs 20 |
| History of Modern Andhra (2nd Edn.) | *P.R. Rao* | | Rs 12 |
| Glimpses of Indian History (2nd Edn.) | *Bhabhani Bhattacharya* | | Rs 60 |

### LIBRARY SCIENCE AND REFERENCE

| | | | |
|---|---|---|---|
| University Libraries in India : Their Administration and Organisation | *S.N. Srivastava and S.C. Verma* | HB<br>PB | Rs 75<br>Rs 15.25 |
| Lenin and India : A Bibliography with Selected Abstracts 1917-1980 | *Attar Chand* | | Rs 60 |
| School Library Management | *G.L. Trehan & I.V. Malhan* | | Rs 60 |

### POLITICS

| | | | |
|---|---|---|---|
| Contemporary Political Theory : Basic Concepts and Trends (2nd Edn.) | *J.C. Johari* | | Rs 25 |
| Comparative Politics | *J.C. Johari* | | Rs 25 |

### MANAGEMENT

| | | | |
|---|---|---|---|
| Industrial Relations System in India : A Study of Vital Issues | *Sahab Dayal* | | Rs 80 |

### PHILOSOPHY AND RELIGION

| | | | |
|---|---|---|---|
| The Nitnem and the Sukhmani Sahib (The Sikh Prayers) | *Lou Singh* | | Rs 25 |
| Modern Indian Thought: From Rammohan Roy to M.N. Roy | *D.R. Bali* | HB<br>PB | Rs 60<br>Rs 25 |

### EDUCATION

| | | | |
|---|---|---|---|
| Teaching of Music (2nd Edn.) | *Gowri Kuppuswamy and M. Hariharan* | HB<br>PB | Rs 25<br>Rs 15 |
| Teaching of History (2nd Edn.) | *S.K. Kochhar* | | Rs 16 |
| Advanced Educational Psychology (2nd Edn.) | *B. Kuppuswamy* | | Rs 25 |
| Educational Psychology (3rd Revised and Enlarged Edition) | *C.L. Kundu and D.N. Tutoo* | | In Press |
| Educational Dimensions of Physical Education | *V. Krishmurthy and N.P. Ram* | | In Press |

### GENERAL

| | | | |
|---|---|---|---|
| Moscow : City of Olympics | *Ivan Myachin and Boris Bazunov* | | Rs 50 |
| Indian Publishing since Independence (Published in honour of Mr O.P. Ghai, veteran of Indian Publishing Industry, on his 60th birthday) | *Ed. by D.N. Malhotra and Narendra Kumar* | | Rs 50 |
| Facing the Lion: Remembrance of a Peaceful War | *G.G. Bhojraj* | | Rs 40 |
| Hungary : Past and Present | *Hirendra Nath Mukherjee* | | Rs 40 |
| Maharaja Ranjit Singh | *Harbans Singh* | | Rs 25 |
| Jats—The Ancient Rulers : A Clan Study in Pre-Muslim Period | *B.S. Dahiya* | | Rs 100 |

## STERLING PUBLISHERS PVT LTD

**New Delhi-110029** **Bangalore-560009** **Jullundur-144003**

UNIVERSITY
NEWS

VOL. XVIII No. 19
OCTOBER 1 1980

*A Fortnightly Chronicle of Higher Education*
**Price 80 Paise**

# IN THIS ISSUE

Research in and into General Practice 537
Higher Education—Quality & Qualification 539

**Campus News**

Raj proposes drastic changes in Varsities Act 541
History of medicine to be included in medical curriculum 542
Linkage between education and development systems 543
Reappraisal of collegiate education 544
Autonomy regained 545

**Agriculture**

Ranchi agricultural college celebrates its silver jubilee 546
From test tubes to fields 546

**News from UGC**

UGC team visits Jammu Varsity 547

**Foreign News**

Indo-British collaboration in science teaching 548
UK scholarships for Indian students 548

**Sports**

NIS draw up coaching schedule for Asiad teams 549

Theses of the Month 550
Current Documentation in Education 552
Classified Advertisements 553

*Opinions expressed in the articles and reviews are individuals and do not necessarily reflect the policies of the Association*

**Editor : ANJNI KUMAR**

# Management of Research in Universities

**G. Ram Reddy***

The purpose of research is to undertake systematic enquiry into a subject in order to discover or revise facts and theories. While research output in most organisations in India has been on the increase during the last 30 years there has been dissatisfaction with the type of work done. Prof. Nirmal Kumar Bose observes that in much of the research work which is carried out in our universities today the spirit of adventure and the desire to tread in paths which are untrodden seem to be lacking. At a Conference of Physics education and research, one of the Professors made the following remark : "A cursary look at these achievements will immediately suggest that India's performance in the field of Physics has been extremely poor. Even in the field of theoretical physics it has been far from satisfactory. The experimental work has been of mediocre character. In the field of technique it is very near zero". This is a rather harsh and over simplified judgment of physics. However, it is indicative of general feeling about research in our universities. Hence the dissatisfaction. The dissatisfaction can be of varied type and could be the result of diverse factors associated with research. In this paper it is proposed to examine why, in spite of the fact that millions of rupees are being poured into research, its performance is not considered to be satisfactory? I am conscious of the fact that there can be no objective criteria for measuring "dissatisfaction", "satisfaction" or "performance". Here, it is only proposed to highlight the nature and cause of dissatisfaction.

Research in India is carried on in a large number of institutions: (1) establishments working as part of the older academic institutions such as the universities; (2) autonomous or semi-autonomous organisations like the national laboratories; (3) government departments set up specifically for research, for example, various defence research establishments; and (4) laboratories or research bureaus maintained by private sector.

Though management of research poses problems in all these institutions, in this paper we are concerned mainly with the management of research in the universities.

The two academic responsibilities of teachers in the universities are teaching the students and contributing to knowledge through research. While the importance of teaching is well acknowledged, the role of research is still a controversial one. Yet another controversy is over the proper balance between teaching and research in the universities. It is generally felt that those who concentrate on research neglect teaching and they devote more time to research because it is prestigeous and rewarding. Good teaching which is the primary duty of a university teacher, it is felt, is not properly rewarded. Thus, one finds that balance between the two is not a struck in most of the universities in the country and the debate continues.

Though higher education is imparted in colleges and university departments, the general feeling is that research is a thing to be done only in university departments and colleges are meant only for teaching. V.V. John quotes an American educator who draws the distinction between the educational mission of the college and that of the university. He said, "a college teaches; a university teaches and learns". John goes further and says "in India we would seem to be accepting a different sort of distinction: "a college teaches; a university learns". This approach is certainly not the appropriate one, for a college should not only teach but also learn; at the same time a university should not only learn but also teach. But in recent years the tendency in universities is for senior teachers to give up teaching exclusively to research. This has tilted the balance in the universities in favour of research.

---

*Vice Chancellor, Osmania University, Hyderabad.

It may be mentioned here that until 1947 most Indian universities were primarily teaching institutions and, barring a few exceptions, research did not flourish in these institutes. It is with the advent of independence that research received tremendous support and attention. Here again the research traditions in the physical sciences were much older than in social sciences. After independence with the creation of several funding agencies like the U.G.C., the C.S.I.R., the I.C.M.R., the I.C.S.S.R. and the I.C.A.R. money became available for research to the teachers in the Indian universities. The climate in the universities also started changing with regard to career prospects of the university teachers—promotions got linked up with research output of teachers. As a result, during the last two decades, lot of attention has been paid to research in the universities. Today most university departments have several research projects and individuals also devote enough attention to this aspect of their work.

There are two types of researches carried out in the university—team research where the researcher is a member of a group of teachers working on a common problem and individual research where the person works on his own. Group research is very common in physical sciences. Even in social sciences research projects are the efforts of a number of individuals under the leadership of one or two persons.

Working for a Ph.D. or a teacher doing work on his own are good examples of individual research.

A few years ago, a western scholar addressing research scholars in an Indian university stressed the importance of acquiring a Ph.D. degree by saying that, "Ph.D. is like a pair of pants; if you wear it nobody notices but if you do not, everybody looks at you". That Ph.D. is a beginning of one's research career and not the end is well known. A postgraduate student who is interested in a teaching career would like to start his research by enrolling himself as a Ph.D. scholar. To get into the university teaching service, Ph.D. has become an essential qualification. Therefore, Ph.D. has a tremendous career value. Those who are already in service are also going in for Ph.D. because their promotions are linked with this degree. But Ph.D. is essentially an individual research enterprise under the guidance of a senior scholar. In every university today one finds hundreds of scholars registered for Ph.D. Some of them give up in the middle and some continue till the end. A few issues relating to doctoral research deserve to be noted here.

In most Indian universities the fresh master's degree holders has no idea of the subject on which he wants to work for his Ph.D., here he is very much guided by the scholar under whom he would like to work. It is the supervisor who suggests a number of topics from which the student could choose. After selecting the topic he appears before the research committee where he is questioned about his interest and importance of the subject. Once the committee accepts him, he is admitted and he proceeds with his work under the supervision of supervisor. Some of these Ph.D. scholars are lucky to receive scholarships from some funding agencies; others work on their own. Generally, the full time Ph.D. scholar takes about three to four years to complete his thesis. Difficult problems arise in the case of part-time research scholars who are mostly working as teachers either in universities or in colleges. With the fairly heavy teaching load such scholars are unable to complete their work in reasonable time and they tend to take unusually long time to complete their work.

There are a number of problems associated with the management of research in the universities. The nature of these problems varies from the type of research undertaken by the teachers. Take the case of research projects where one senior scholar submits a proposal to a funding agency and would like to investigate a problem in collaboration with several investigators. This is the most common type of research undertaken in the universities. Several problems are encountered in this kind of research enterprise. Every research proposal has to be forwarded to the funding agency through the various university authorities. It starts with the head of the department, goes through the principal/dean to the university which finally forwards it to the agency concerned. In the forwarding of a proposal itself a scholar might encounter one of the two types of difficulties. In some cases the higher ups who are not favourably disposed towards the scholar might negative such proposals or there can be enormous delay in forwarding a proposal because it has to go through various channels in the university system. Generally most proposals are forwarded to the funding agencies. Thereafter the funding agency takes its own time to consider a research proposal for it has to send to experts for evaluating the proposal and place the proposal before their appropritae committees. If the proposal is sound, the funding agency approves it and thereafter letter of approval is sent to the university concerned and to the individual who has sent the proposal. This is only the first stage of research.

After getting the sanction, the individual would like to start his work on the project as early as possible because most projects are time bound, say one or two years but in several universities the project directors face number of difficulties in implementing the projects. Though the project director is the head of the project he has not got the freedom to move fast in executing it. He has to go round the university office to get the money released. This is a herculien task and in some universities it takes months. Thereafter he has to take the permission of the university authorities to recruit staff required for the project. This again is a time consuming process. After getting the approval he has to follow the procedures relating to recruitment of staff and it has to be done according to the qualifications prescribed. In several universities it can be a pretty time consuming process; in a few universities some of these things have been decentralised and the project director enjoys enough autonomy.

Once these preliminaries are over the project director has to prepare the blueprint for the actual work whether it is field work or laboratory work. Most social science researches involve field work for which properly trained and qualified staff has to be recruited. It is the experience of several project directors that it is extremely difficult to get properly trained staff. Very often fresh graduates or post-graduates are recruited and they take lot of time not only to understand the subject but also mechanics of research. Even after that there is no guarantee that such staff would continue till the completion of the project for several of them join research projects only as a stop-gap arrangement and they are always on the look out for more secure positions. Thus there is a lot of wastage in manpower in research projects—the turn over of staff is very high. Lucky is a project director whose investigators continue in his project till it is completed. Here one finds that there is no regular policy in the universities to retain the trained research workers. Every project director is most of the time struggling with raw-graduates.

Organising and supervising field work could be a very difficult task. Making arrangements for the visits of investigators to rural areas is no easy task. Conditions being what they are in rural India the researchers have to face many problems in villages such as accommodation, transport and food. What is even more important is that people in the rural areas suspect the investigators as agents of government. It really takes a lot of time to establish rapport and collect proper data. Those of the research directors who have full teaching responsibilities are not in a position to supervise the work of the investigators in the field. As a result, several of them tend to carry on research activities only during the vacation. No wonder few university projects get completed in the prescribed time schedule.

Another important aspect of management of research which deserves attention is the time and attention paid to research. Is it possible for a university teacher with his full teaching responsibilities to pay adequate attention to his research project? It is the experience of the most scholars that they are not able to do justice to both teaching and research—one of the two tends to get neglected. Therefore, it is worth considering whether such teachers should be given substantial relief from teaching while they are engaged on an important project. Very few universities can afford to do this because of the financial constraints. One way of tackling this problem would be to give the teacher complete relief from teaching but he should draw his salary from the project itself while he is devoting his full time to it. It is observed that in most research projects the directors are honorary. The change in the policy, therefore, would go a long way in strengthening research activity in universities.

A phenomenon which is commonly observed is that most research projects go to senior scholars. It is partly because of their reputation in the profession and partly because of their contacts; the younger staff members rarely get opportunities to have independent projects on their own. Thus, one finds that only those who are well established in the profession get funds from outside agencies. There are a number of government agencies which provide funds for research but they tend to back up only the "known horses". No wonder there is a feeling that only good "operators" can get funds for research and the talented young men are not rewarded. There is some truth in the allegations that, as in the case of public works department where contracts cornered off by established contractors, so in research, projects are monopolised by the seniors in the profession.

Research cannot thrive unless there is proper climate in the universities. The departments where proper climate has been created, they have been humming with research activity. Where such a climate is absent individuals in the departments do not feel encouraged. The hierarchical set up of departments has an adverse effect on such an atmosphere. In our set up much depends on the whims and fancies of heads of departments. There are cases where the heads do not evince any interest in research. There are those who would like to monopolise every research opportunity. Where the heads are interested in research, they tend to promote their own areas of specialisation to the neglect of other branches of the discipline. Only where the heads have broad outlook and believe in involving all colleagues, the atmosphere of research has been built on right lines. "Under the prevailing conditions in India" writes A. Rahman, "the departments act as centres of vested interest, both from the point of view of administration and research. They are hierarchical in organisation, with concentration of power in the head of the department, and act as a brake on developing newer areas of research". Democratisation of departmental set up alone can bring about change in atmosphere.

One of the reasons why research has been receiving lot of attention in the universities is the stress on "publish or perish". Since a man is judged by the number of publications and his career depends on such a number, there is a tendency to boost up the numbers. But in the name of publications lot of spurious stuff is labelled as research.

While there is lot of research activity in several university departments it is mostly of an adhoc and not of a continuing nature; it is dependent on the availability of funds. There are very few universities which make funds available to departments on a recurring basis. All the time the researchers have to apply to outside agencies and only when they approve their research proposals is it possible for them to do research. Though several agencies like the U.G.C., the C.S.I.R., the I.C.S.S.R. provide funds liberally, there is no continuity in these things. As a result the departments are not in a position to have long range policies relating to their research.

When a project is over, the work concerning that project abruptly ends. The manpower trained in the project also goes waste. There are exceptions to this where a few departments have been recognised as centres for advanced studies or special assistance programmes have been given by the U.G.C. In some other cases special centres of research have been established. In such instances there is continuity in research and the departments can have long range research programmes. If research is to be put on a permanent footing some funds have to be made available to those departments which are active in research. These large amounts cannot be provided by the universities but they could set apart some money for research in these departments. Big projects, however, have to be financed only by outside agencies—some on a long term and others on short term basis.

It is a welcome feature that a number of institutions like government departments, the U.G.C. and other agencies are providing funds for research in universities. As has been pointed out earlier, this has given tremendous boost to research activities in university departments. It may, however, be added here that the money coming from outside is not always as unmixed blessing. If it is coming from autonomous agencies like the U.G.C. and the I.C.S.S.R., the C.S.I.R. etc., generally it is free and does not carry any restrictions—seen or unseen. But we are not sure whether the same can be said of research financed by foundations and government departments. Both these organisations would like to spend money on subjects of their choice which are handled by non-controversial people. Long ago Professor Herald J. Laski pointed this out when he said " 'dangerous problems' are not likely to be investigated, especially not by 'dangerous men'; that would not win the esteem of the trustees who can be counted upon to dislike disturbing themes... it must be remembered that the system, as it works, is all to the disadvantage of the scholar whose results however important, come slowly". It is understandable that government departments and foundations have their own research programmes and would like to promote them according to their own priorities. Only those scholars who are interested in such problems would have any chance of getting money from them. This is not an altogether unhealthy feature. But the two implications of research sponsored by such institutions tend to affect academic freedom. If the results of a research done are unpalatable to the institutions it is not certain whether they would be welcomed, in all probability the report would not see the light of the day. Secondly, these researches are time bound; there is a problem to be investigated and the results must be given to the funding agency according to the time schedule. This some times affects the quality of research.

The utilisation of research has been causing concern to all those interested in it. The findings of research, particularly action oriented research, do not generally have any effect on policy. This is noticed clearly in social science research where public policies do not take into account the research findings. There is hardly any rapport between the researcher and the policy-maker; each seem to live in his own world. When the nation is spending millions of rupees on research, it is argued, its fruits have not been taken into account in the formulation of public policies. The first Review Committee of the I.C.S.S.R. summed up the feelings very well when it said: "Social Scientists are frustrated by the fact that the research they produce is not utilised by the requisitioning agency or by the authorities in general. The concept of 'two cultures', as perceived by C.P. Snow, applies fully to the utilisation of social science research. The linkage between the enterprise of the discovery of knowledge and the enterprise of matching scientific research with the technology of practice leading to utilisation does not operate in the areas of social science with any great force in this country. As a consequence, the rigour and the purpose of social science research suffer as much as the relevance and effectiveness of policy formulation and implementation". It is true that there are dangers in having close collaborations but total isolation of social science research and policy making is also not a desirable feature. As the Review Committee of the I.C.S.S.R. says: "There is need for action on the part of social scientists not only as individuals but as a community and the users of research as well to bridge the gap between the enterprise of knowledge generation and the enterprise of knowledge utilisation". The administrators and political leaders, says the Committee, will need to take sustained initiation in allowing social science research to influence policy formulate and execution.

This is also true of physical sciences when there is a lot of gap between a discovery and its application which is mainly because there is no proper coordination between the institutions of research and those involved in application. Wherever applied research is going on there is a strong case for effective coordination among producers of research and consumers. As V.V. John writes it is necessary that our education tries "to bridge the time between discovering truth and placing it at the service of men".

One serious criticism against the research carried on in the universities has been that it is not relevant to the problems faced by the society. There are those who argue that ours being a poor country we really cannot afford the luxury of fundamental research; we should be more interested in investigating problems of immediate relevance. Others who are opposed to this argue that the universities are not factories, they should concentrate on fundamental problems. Either of these approaches is not valid. University departments have to conduct both the types of researches—fundamental as well as applied. If problem solving research is not undertaken in the universities they would be subjected to tremendous criticism and would be dubbed as ivory towers. What needs to be stressed here is that too much of liberal education approach is no longer valid. University teaching as well as research would be judged in future by their relevance to the community. It was this reaction which led to the establish-

*(Continued on page 538)*

# Research in and into General Practice

N.N. Laha*

The terms used for the present discussion are comprehensive ones. General practice combines medical practice in a general way. A few years back this was the mainstay of clinical practice. With the coming years, consultancy practice has assumed an important position. Also, specialist practice is fast coming up. So much so that it has overtaken general practice to some extent. But general practice shall perhaps always be the more popular type because of its general attitude.

Research is the search for truth. Science is truth. Medical research paves its way for a better understanding of the disease problems of suffering mankind. A disease conquered should be no cause for rejoicing. A disease conquered paves way for a newer one to solve. Therefore, it is a relentless struggle which perhaps will never end.

Research in and into general practice shall always remain an interesting topic. This is because it has a wider scope of carrying it out. From a practical point of view, research and its correlation with general practice goes a long way.

Clinical perfection has unfortunately not very much caught up with the present day imagination. There was a time when clinicians would take pride in their clinical sense. But unfortunately now the trend is towards a 'quick treatment' rather than a 'correct diagnosis'. There is no doubt that medical science has advanced itself in strides over the years. Mortality has reduced and now man lives longer that what his fathers used to. But the tragedy remains. This is that, then medicine was a combination of art and science. Now this is no more. It is merely a tool to treat. Brilliant investigatory techniques and wide range of drugs have to share the blame to some extent. 'Why the clinical perfection?' is perhaps the thinking of a general practitioner, when nobody perhaps will question even when he makes a mistake. That lessens the zeal to probe a problem. It seems that perhaps nobody has even time to probe. Unfortunately or fortunately, the problem of the patient gets solved even though it has not been properly probed into. A large number of drugs helps in developing this trend. One can imagine the past masters of clinical science watching worried from above to see this state of affairs. Hippocrates lived years ago. His sayings still hold true today. He was called the Father of Medicine. His observations were a great factor in his success. But who observes today? Clinical research could mean observation. And perhaps this can be best done by a general practitioner.

Thinking and constant thinking is perhaps a very important tool in general practice. How large the number of patients may be, thinking into their problems should be the research of a clinician? Theory itself is good, it forms the base of a clinician, but perfection in developing the clinical sense comes from thinking. A simple diagnosis of hypertension may have many branches coming out in the way of etiology. That is research. A general practitioner should probe into the welfare of his patient. General practice cannot be converted into a business. Even if it has to be converted into business, then also it should be a very puritan and sacred business.

History of medicine gives examples of brilliant research work coming out of pure thinking or observation. The discovery of stethoscope was a chance thinking of Rene Theophile Hyacinthe Laennec. Had he not bothered to think as to how he would hear the heart sounds of a fat lady patient, the stethoscope would perhaps never have been discovered. Today the stethoscope is a must for a doctor. William Withering introduced digoxin. Had he not bothered to find out as to why a particular lady patient was not improving when she was not supposed to have improved (she was eating a decoction which had foxglove), would never have brought forth digoxin. Today it is an important drug. There are so many examples. After all, research in many ways is an inspiration. One may strive for years and achieve nothing. Another may just loiter about and a flash comes to give a great research.

Louis Pasteur had very correctly said, "In the field of observation chance only favours the mind that is prepared."

Record keeping is a very essential part of research. Useful information can be derived from well kept records. A general practitioner can keep a wonderful record of cases seen by him—as such he sees a very large number of cases. Suppose data about a particular disease is needed. If the general practitioner does not rise to the occasion, it would be a matter of shame. The general practitioner should have some idea about statistics also so that it could be applied whenever needed. Mass planning programmes can be planned out on record keeping maintained by doctors.

The present standards of medical research have come a long way now. General practice sadly lacks the technical side of the question. Diagnosis of a disease is mainly based on so called 'clinical sense' and treatment on 'therapeutic sense'. As regards research institutes, there are quite a few but reference there by the general practitioner is made very rarely.

The present position may be bad but there is no cause for getting panicky. It has already been pointed out that the best of research work has some time been done by a general practitioner. A general practitioner should realise as to what type of research is important for society. Clinical research is perhaps the answer. And he should form the base for this type of research. There are reasons for this. A general practitioner perhaps sees the biggest series of patients among doctors. All sorts of patients flock to him. He should ideally be called '*specialist among specialists*'. He is a physician, surgeon, ophthalmologist, orthopaedician, gynaecologist, all rolled into one. Therefore his experience is much more than a consultant who specialises in the branch of a particular subject. Medical research should unite problems to be rolled into one solution. The unity of problems with a common solution should not be a pipe dream. When a problem becomes different to solve then help of the consultant should be taken.

---

*Lecturer in Medicine, G.R. Medical College, Gwalior.

Every patient cannot be put in a hospital. Domiciliary management will always remain the answer. A general practitioner fits in beautifully into the system. Therein research can become so easy for him. It will help his patient also. Directly under his supervision the doctor can manage and research on a case. Modern research is a full time establishment. Still the past bore brilliant research without such establishments. Even in the present set up, a general practitioner can boost standards of research by his cases and the information about disease given by them. Insulin may have been a brilliant achievement of Banting and Best, but the experiment was first done of it on a human being in the form of a diabetic boy dying in the neighbourhood. The boy survived and so did research succeed.

Trials are a part of research. A drug trial need not necessarily be the responsibility of one consultant. It can be done by general practitioners also. Confidence comes up when one makes himself feel responsible. A general practitioner is a great help in this line. Therein his help in research is there. In fact drugs are perhaps more used by the general practitioner than anybody else. He should *be the better and impartial judge of the drug.*

A general practitioner can always form the base of research workers. The research worker can depend upon the general practitioner to send him ideal cases for research. This of course means higher types of research which cannot be carried out at the general practitioner level. The general practitioner should always be willing to refer cases for their welfare. That should be the trend. The general practitioner should be a screening computer for higher things to come. This clockwise regularity relationship should be there between the general practitioner and research worker or say an institute, and this would solve many unsolved problems of disease.

So research in and into general practice can be done. It should ideally be the base of research. The general practitioner should himself be a clinical researcher and leave the complicated problems for the man meant for this. A general practitioner should see, think and probe problems about the patient. He should maintain good records of his cases and also know statistics. He should be actively engaged in drug research. He should think for the betterment of his patient and give him hope. The man meant for higher research depends on him for better things to come i.e. improvement in medical research. □

---

# Management of Research in Universities

*(Continued from page 536)*

ment of Land Grant Colleges in the United States.

As a direct result of publish or perish tendency and higher prestige attached to research, quantity of research has grown enormously in physical and social sciences. Quite a few persons today take up research not because they have an aptitude for it but because it has prestige value and career prospects. There is a tendency to add to the number of publications, for the output of quantity is considered to be important. As a result says, Blau, ludicrous practice may develop; for example, the names of all members of research team may appear on every publication though only one or two worked on each. To raise the publication records of all the same research findings, with minor modifications, may be published in two or more journals. What is of greater significance, the pressure to publish diverts attention from more important research problems to those promising to yield quick results. The consequence is that scholarship suffers, and many articles in learned journals "resemble finger exercise on the piano....(and have little concern) with answering real questions or solve important problems". Energies, therefore, go into pedestrian type of research work. As Professor Frank Dobie once said: "the average research job they engage themselves in is of nothing but the transference of bones from one grave yard into another". The main problem, therefore, is ensuring quality of research.

To sum up, it has to be realised that research is an important function of university. If research is to prosper in the universities facilities have to be provided so that it can be done on a continuing basis. The relevance of research to the community has to be borne in mind. There has to be proper coordination between the producers and users of knowledge. More stress has to be laid on the quality of research. These are the challenges which face management of research in Indian universities. But the tendency to over emphasise research and neglect good teaching has to be checked. In the college or university, research and teaching are indeed two ends of the same bow; neither has much force without the other. □

# Higher Education —Quality & Qualification

V.N. Misra*

With the introduction of large scale Ph.D. programme by the U.G.C. in various disciplines of higher learning, the University community started thinking about its implementation and real worth. Prescribing Ph.D. as an essential qualification for teaching at University has come to the new non-Ph.D. entrants as a great barrier to their career development and academic achievement. Within a period of 5 years of their initial appointment they have to earn a Ph.D. along with their daily teaching work. (Teacher fellowships are still limited in number).

### Aims of a higher degree

What is basically deemed of a Ph.D. programme at the level of higher education? How far the Ph.D. programme adds to the merits of quality teaching? Whether it adds to the personal development of the researcher only or it has any relevance in the wider context of nation and human society as a whole? Do there exist adequate facilities for carrying on research in our universities? These are a few models of questions being generally discussed in the University fraternity. Thinking generally on the pattern of higher education and its quality-improvement the teachers have realized the basic necessity of improving the standard of teaching and learning. The faculty improvement programmes and the degree oriented research work have been the basic concern of teachers at the highest level.

Before coming directly to the questions as posed above, let us analyse the circumstances out of which they have taken their birth. The falling standards of education, non-relevancy of the content of syllabi, lack of definite social aims, fruitless intellectual endeavours, burdensome and boring systems of instruction and above all the absence of personal human touch have all added to defect the very purpose of human welfare in person and in society. No educational system can prosper in the isolated island. Hence it is not far to seek why our educational planners have shown their anxiety and worry over the present situation.

Any prescription or restriction is but aimed at energising the ailing system of our education. But can you bring energy in a sick body without first removing its original disease? Even a major operation would be indispensible to achieve the ultimate goal of sound health. The poor medicines may fail and make even the most sincere effort futile. Hence what our ways and means should be for the realization of our purpose, has been the great concern of those who are responsible for showing the torch-light in the vast dark field of educational unrest.

As a general rule, a higher degree symbolizes a higher standard of learning. The various specializations in different fields of learning are generally falling within the scope of a Ph.D. programme. A sound background of general education is regarded but a preliminary for specialization. On the whole, the general education ranks little lower in status in our present set up. Specialists in particular disciplines are automatically ranking higher in their positions. Hence it is obvious that a system which promotes the cause of specialist education, is aimed at furthering higher education in special branches of academic pursuit. But is it all that a sound educational system should be? Where does the cause of promoting the sound general education stand? The tooth and nails of a higher degree, which in our system symbolizes a better standard of academic achievement, have always been telling upon the health of general education. Can we produce good generalists in the present system of education, is a great issue with regard to our programmes pertaining to higher learning? Here we meet nothing but an unavoidable disappointment.

The present Ph.D. programmes aim at sharpening the human intellect in a particular area of learning and thereby are supposed to advance knowledge in that specific field only. The specialists may be in great demand but the question is whether we can discard the need of good generalists in our society. The quality of teaching in a particular area may be regarded to have been improved by ensuring a higher research programme of learning in that area. But what about the general field? The specialists may fail badly in the general field of learning due to their limited special type of academic achievement. It can, at least, be well understood that the contribution of a specialist will not add much to the quality improvement programme in the field of general education. The combined efforts of various specialists will always lack the presence of a unified personality of a living teacher. It can be only a comprehensive understanding of the general area which is likely to add some quality in general programmes of teaching. It may be a Ph.D. programme of general type or a differently named programme of comprehensive nature which can deliver some good results in the general education of a developing country like ours.

### Position of guides in higher research

Facilities for research in specific disciplines have been provided in various centres of higher learning. Keeping in view the large number of researchers, they fall short of their adequacy. A large number of research workers under the guidance of a few so called experts and guides being very small in number is another drawback in the field of higher research. According to the prevalent norms in the field of higher education in our country the qualified persons, who have a capacity to guide research, are denied the position of guide, under one excuse or the other. Seniority, teaching experience, being in good books of head and other authorities are said to be a few criteria which can provide one with the opportunity of being a guide even in the area of study where the guide himself might be a new entrant. Command over the area of study, fundamental capacity and aptitude for indulging in serious research work have been ignored in a large number of cases. Interest of guide in the work of a research student is again a subject of serious objections. The traditional concept of some achievement by the research worker only has marred the basic interest of a guide in the research project. The guide on the other hand, should also be adequately awarded by the fruits of a successful research in his area of study. Most of our established research centres have been ignoring the poor position of senior guides. The high educational authorities like U.G.C. have also not yet taken botheration to provide any extra facility to a research guide. The guides, on the other hand, in the absence of any authorized payment for their labour have been trying to compensate in some way or the other and thus weakening their own mind and soul.

---

*Shivaji College, New Delhi.

How long should it continue in the interest of higher research? The research grants should aim at research as a whole i.e. the guide and the researcher. Environmental and material control should be regarded well within the scope of a particular research project and the guide should be given a free hand to control them. Keeping in view the strict quality control, the supervisory bodies like U.G.C., N.C.E.R.T. etc. should fix general norms and standards which need not be allowed to be borrowed on any ground. The total pursuit of research should be weighed in terms of expenditure and the results expected to be delivered to the nation and human society as a whole. Non-practicability, meaninglessness, irrelevancy, low standard and immitation should all come to create a valid suspicion in the final assessment of a research project.

## Higher education and class-room communication

The impact of our research oriented programmes on general quality of teaching should be studied in detail. The discipline applied in the course of achieving goals of learning differs from the one used in class-room communication of the same. The former is devotion oriented and the latter technique oriented. We have been ignoring the second type of discipline in the field of higher education since long. This has practically created a communication gap between the teacher and the taught. Being master in one area of study is not the same as being a master in communicating the subject-matter of learning. The teaching in our universities is more lecture oriented. It suffers from a great drawback in the art of communication. Tape records, films, charts and written devices on the subject-matter (not in the form of printed general books only) and such other aids have yet to play their creative role in the field of higher education. As a matter of fact we have been talking a lot about the application of teaching aids and devices at secondary and primary stages of education. But we have not yet succeeded in this field. Theoretical degrees with a handful of so-called model lessons could deliver no good even at the secondary and lower secondary levels of education. Higher education which seeks to achieve higher values should not ignore the way through which it can more successfully communicate to those who are going to immediately apply their earned knowledge in their own lives and in the wider context of nation and the society as a whole.

## Preference for saleable values

The higher values in human life may be divided in three categories i.e. the established values of the past, the present saleable values and the future guiding values. The function of higher education should be to keep a proper balance and check over these values. Unfortunately with the rise of industrial market in the world the educational planners have shown their preference to the saleable values. Is it all that the wise educational planners in the field of higher education should do? The present saleability may be in demand upto any extent but without a foresight for the coming ages the higher education will remain blind. The absence of past established values will make the higher education lame.

## Responsibility of intellectuals

Who can maintain the proper check and balance in the field of higher education today—the individual, the Government, some sections of society or any other social agency? The control of big industrial houses over higher education is not far to seek. They have frankly suggested a vocational bent of mind. In the name of social justice and social good various sections of society have tried to see their ulterior aims achieved. An open threat to the autonomous character of educational institutions is telling its own story. It has endeavoured to give a specific mould to the entire system of higher education. Thus the various agencies, mentioned above have been tried till now. The basic responsibility in the present situation lies on the shoulders of enlightened intellectuals. They can fearlessly and devotedly keep the system appropriately balanced. Strict quality control and a less degree-oriented character in an absolute autonomous environment may innovate our system of higher education. Boosting up formal qualifications cannot be expected to deliver any good to the quality improvement programme at any stage of education. □

# CAMPUS NEWS

## Raj proposes drastic changes in Varsities Act

The three-man Review Commission, headed by Dr K.N. Raj, which went into the working of the universities in Karnataka, has recommended drastic changes to the existing Universities Act. In its report submitted to the Government, the commission said though the passing of the Act was a step in the right direction in so far as it introduced a common system of governance and administration in all the universities, several sections of the Act had been detrimental to the effective functioning of the universities. The commission felt that over-centralisation of administration and interference from outside could not improve matters in the universities and only by reversing the changes made in this direction and permitting greater scope for academic management from within that a process of regeneration of universities could be initiated. At the same time, the commission recognised the need for social control over education. It submitted to the Government draft amendments to the existing Karnataka Universities Act, 1976, incorporating its recommendations.

The commission was appointed by the State Governor in his capacity as Chancellor of Mysore, Bangalore and Karnatak Universities (Dharwar) in January 1979. Other members of the commission are Mr D. Jaganatha Reddy, Director and Pathologist from Madras and Dr C.N.R. Rao, Chairman, Solid State and Structural Chemistry Unit, Indian Institute of Science Bangalore.

It has strongly recommended abolition of capitation fees in all colleges, professional or otherwise, within the next five years.

Professional colleges offering courses in engineering and medicine should be permitted to raise their annual fees to the extent of four to six times the prescribed standard fees, the number of seats which the management is permitted to allot should not be allowed to exceed 20 per cent of the admissions in 1980-81, 15 per cent in 1982-83, 10 per cent in 1983-84 and five per cent in the following year. Thereafter the management should not be allowed to allot any seat. It has recommended the setting up of a State Commission for higher education immediately for taking an overall view of the development requirements of the State in this sphere. Through the proposed commission, the State Government could make available, on a systematic basis, the funds for the purpose. It should be an autonomous body, consisting of not more than five members (each with specialised knowledge and experience in one or other of the major areas of higher education) and with a distinguished scholar from among them as chairman. A major function of the commission should be to frame programmes for the development of higher education in the State, preferably with a 10-year perspective, and in the process co-ordinate them with a similar perspective by all the universities in the State.

The proposed commission may constitute expert panels to review the status of teaching and research in different subjects. The commission should be able to act as an inter-face between the Government and the universities. It should be the commission's responsibility to assess the maintenance requirements for acquisition of books, journals and administer the funds for the purpose. It need not be entrusted with the task of administering the normal grants-in-aid given by the Government to the colleges. But individual colleges affiliated to the universities should be able to approach it for assistance for specific development purposes. It recommended that all private colleges should be required by statute to reconstitute their boards of management as part of the condition of affiliation.

A State Inter-University Board should be formed to promote coordination between universities for migration from one university to other and interaction between them. It suggested the setting up of departmental councils in each department in the university consisting of all lecturers, readers and professors. In place of the existing practice of appointing the heads of departments, the task of management and administration in each department, should be entrusted to a committee of management. The committee should function in close association with joint consultative committees of students and teachers. The departmental councils and committees of management should be vested with sufficient powers and responsibilities to provide a focal point for the common professional interest. Similarly, every college should be required to constitute a staff council with wide-ranging functions.

On appointments, the commission said only if experts were unanimous in their recommendations, the syndicate should under no circumstances modify or hold in abeyance the acceptance of the recommendations.

It called for exploring the needs to establish centres of advanced study in selected areas in the natural, social science and other subjects. On engineering education, it said unplanned proliferation in the number of engineering colleges had affected the quality of education. It recommended immediate stopping of unplanned growth of engineering colleges. It would be desirable to adopt modular form in engineering education at the undergraduate level with enough scope to teach courses of relevance in the physical and life sciences and social sciences as well. Steps should be taken to promote the active participation of industries and other areas of engineering activity in the curriculum and efforts should be made to involve institutions active in social and economic studies for evolving courses on need-based engineering aspects.

It recommended that orientation programmes should be arranged in each college at the beginning of the academic year furnishing information on all available facilities. Each fresh entrant should be assigned to an academic adviser for guidance and help. Each college with the strength of 1,000 students should have a health centre. Group health insurance schemes covering all students and teachers in a college should be initiated. Students should also have a voice in the formulation of curricular programmes in decision covering methods of teaching and evaluation of students and other matters concerning them. This could be achieved by giving them representation in the proposed departmental councils and in joint consultative committees at the university level.

## Demand for Urdu university

The All-India Urdu Educational Seminar held in Hyderabad adopted a resolution requesting the State and Central universities to declare Urdu as a second official language in such States where sizeable number of population speak Urdu. The one-day seminar urged the Central Government to establish at least two Urdu Universities, one at Hyderabad and another in the North. It also urged that to ensure Urdu its rightful place and to get its practical and utilisation position, reservation and proportional representation in jobs and professions. Should be provided for Urdu speaking people. Amongst other recommendations the seminar made included introduction of Urdu medium at postgraduate and research levels, establishment of separate Urdu cell at the University Grants Commission, coordination of Urdu education at State and national level, introduction of Urdu as the medium of examination for all the States and all India competitive examinations and create facilities for departmental and competitive tests in Urdu also in the autonomous bodies and corporations. The seminar recommended that the Central and State Governments should start parallel institutions for vocational and technical education in Urdu medium. It also urged upon the Union Government to give appropriate representation for educational broadcasts in Urdu over All-India Radio in the States and at the Centre. Prof. G. Ram Reddy, Vice-Chancellor of Osmania University while addressing the seminar said that the number of colleges in the twin cities rose from a mere six in 1956 to forty-five colleges at present which is a tremendous growth of education in this part of the country. India has made rapid strides only in the educational sphere. Stating that the teacher was the key for the improvement of the quality of education, the Vice-Chancellor stressed the need to recruit right type of teachers. There should not be any compromise in the recruitment of right type of teachers since it was they who could improve the quality of education.

## History of medicine to be included in medical curriculum

Dr. B.N. Sinha, President of the Medical Council of India said in Patna that the scope of medical education had been widened with the inclusion of a new subject—the History of Medicine—in the five-year integrated course. Inaugurating the conference of Surgeons Association of India, Dr. Sinha said that the new subject had been approved by the Medical Council of India and would be introduced in all medical colleges soon. The new subject would unfold a store house of vast valuable information paying the way for the opening of a new horizon in the country's medical care. He called for sincere efforts on the part of persons in the medical profession to know more about Ayurvedic, Homoespathic and Unani systems which would equip them better for the service of humanity. Stressing the importance of rural and community services, Dr. Sinha said that these had become an inseparable part of the medical profession. Even small efforts by the doctors engaged in the implementation of these services would go a long way in alleviating the sufferings of the rural masses. Dr. Sinha urged the doctors to carry on integrated research unmindful of the handicaps that they might face.

## NEHU refreshers course for high school teachers

The Centre for Adult and Continuing Education, NEHU, in collaboration with the Central Institute of English and Foreign Languages (CIEFL), Shillong is organising "Weekend Refreshers Course in Modern Techniques of Teaching English for High School Teachers" of this area from August 30 to Nov. 15, 1980. Speaking at the inaugural session, Mr. C.P. Tewari, Reader in-Charge, Centre for Adult and Continuing Education, said that the need of improving teaching techniques for high school teachers was a must and that a joint effort and cooperation of all Educational Institutions in this field was very essential to raise the standard of high schools in this part of the country. Mr Tewari informed the teachers gathering at the function that NEHU through the Centre for Adult and Continuing Education had organised short courses, seminars and symposia in the past for the benefit of teachers and students alike. He assured that the Centre would organise many more courses in the future for their benefits.

The topics covered in the course included: Empty words, Language errors; Vocabulary; Interpreting poems; Structure of English language; Speech sounds, Grammar, Pronunciation, Words formation and Writing skills etc. Participants would be given practical assignments where they would try to find out creative ways making a class involvement in their teaching career. The course would also provide them with new methods of teaching and class participation, so that the present teaching system would result to a give-and-take process in high school learning. It is hoped that the course would improve both teachers and students in this region.

There are 35 regular teacher-participants in the course from various High Schools of Shillong. Resource persons in the course Dr. B.M. Sagar, Mr. V,D. Singh, Mr. R.K. Jayaraman and Mrs. Jean D'Souza, are teachers of the CIEFL, Shillong.

## Plea for linkage between education and development systems

Dr. M.S. Swaminathan, Member (Education), Planning Commission pleaded for interlinking of the education system with employment and development systems. The academic community should be sensitised to the problems and means of the poor by providing opportunities for interaction with real life situations.

Dr. Swaminathan was delivering his key note address at a two-day seminar on educational reforms held recently in New Delhi. Organised by the National Institute of Educational Planning and Administration, the seminar was attended by Education Secretaries and Directors of Education from various States and Union Territories as well as senior officials of the Ministry of Education, Planning Commission, University Grants Commission and NCERT.

Dr. Swaminathan said that the common pattern of Education for all the diverse groups in the country should be replaced by a diversity of models suited to varying needs and circumstances of different areas. This would permit flexibility of methods and means of delivery of education and speed of response. It would also enable the use of both the formal system of education where it existed and the development of non formal methods where these were more relevant. The content of many educational courses could be improved by dialogue with Industry and other users.

Shri P. Sabanayagam, former Union Education Secretary said that the democratisation of education did not mean merely provision of facilities for deprived sections; it also meant ensuring that they had reasonable chances of success. He stressed the need for identification of groups for whom education was sought to be given including the age group 3-6, which had been neglected.

Prof. M.V. Mathur, Director of the Institute, said that there was need for making more persistent attempts to provide effective education at all levels by adoption of non-traditional means. The resource constraints were such that mere expansion of traditional methods would not be able to solve the problem.

## Need to reform university system stressed

Dr. Jagannath Mishra, Chief Mintster of Bihar, said in Patna that the Government would give topmost priority to the law and order situation in the universities and colleges. He was addressing a meeting of the Vice-chancellors of state universities. He said that the government was determined to restore normalcy on the campus by regularising teaching and examination sahedules. An ordinance making the use of unfairmeans a cognizable offence is being promulgated. Now onwards there would be summary trial of the persons including students, invigilators found adopting unfairmeans at the examinations. He said that the sanctity of examinations would be maintained at all costs. The Chief Minister urged that all pending examinations including those of 1980 be completed by the end of March 1981. He allowed three months' grace to his earlier announcement in view of the Vice-Chancellors' inability to complete 1980 master examinations upto the end of 1980. He however pointed out that the 1979 master examinations must be completed by the end of the year. Dr Mishra requested the universities to arrange additional classes during vacations to cover up the courses. The government was prepared to reimburse all the expenses incurred in payment of remuneration to the teachers engaged in taking extra classes. He also requested the Vice-Chancellors to send proposals for construction of separate examination halls in all colleges to avoid suspension of classes during examinations. With regard to promotion of sports and cultural activities in the universities, the Chief Minister said that a sum of Rs five lakhs had already been sanctioned in this behalf. Every college should have a physical training instructor. He also said that the Vice-chancellors should take steps for the implementation of the new university ordinances at the earliest. The constitution of new Syndicate should be completed as soon as possible. He asked the Inter-University Board to prepare uniform statutes for promotion of lecturers to the post of readers in every university of the State.

The Vice-Chancellors later met Dr. A.R. Kidwai Governor of the State, at the Raj Bhavan and discussed with him the problems of law and order and financial conditions in the universities. Dr. V.S. Jha, Chairman of the State University Enquiry Commission was also present during the course of discussion.

## Senates to meet at 15-day notice

Special meeting of the Senate of a University can now be held on 15 days' notice in the universities of Bihar according to the new statutes framed by the Bihar Inter-University Board. The Board met under the chairmanship of Dr. S.P. Sinha in Patna. It felt the necessity of holding special meeting of Senate in order to enable the universities to constitute new syndicate according to the amended university ordinances. The Vice-Chancellors of Ranchi, Bhagalpur, Magadh, L.N. Mithila. K.S. Darbhanga universities, the Education Commissioner and the Director of Higher Education also attended the meeting.

Under the new ordinance, the universities are required to frame statutes for (a) defining powers and functions of Proctors and Coordinators of College Development Council; (b) representation of principals of colleges in the Academic Council; (c) prescribing manner of appointment of Deans of faculties; (d) constitution, powers and functions of Advisory council to be set up in each constituent colleges; (e) code of conduct for employees of the universities; and (f) to provide for other service conditions of teachers. The Board also approved the recommendations of the temporary lecturers Absorption Committee to the effect that if a temporary lecturer has completed at least 18 months service on 30th June, 1977 by holding more than one appointment in same college or different colleges, he should be considered for absorption in regular service if at least one of the appointments held by him had been made on the basis of advertisement as provided in the statutes.

## Reappraisal of collegiate education

The Tamil Nadu Education Minister C. Aranganayagam called for a reappraisal of the entire collegiate education in as short a period as possible so as to restore to it dignity and value. Participating in the Teachers' Day celebrations under the auspices of the Association of University Teachers, the Minister said that clashes and agitation amongst students had become a common feature and even communal hostilities were aroused in campus as well as hostels. In fact, it was this feature which perhaps compelled the Bihar Government to pass an ordinance proposing drastic punishment for copying in examinations. He said the malady had become pervasive and some serious thought had to be given to it. Mr Aranganayagam regretted that all this led to a sharp fall both in quality and standards. With the result although degrees and post graduates degrees were flunted but seldom did these reflect knowledge commensurate with the qualification. Mr Aranganayagam urged the teaching community to put forth their suggestion to arrest this rot and make collegiate education meaningful. The Minister also said that the Union Education Ministry and also the University Grants Commission had expressed themselves against starting of new colleges. In fact the approval for the setting up of two new universities in Tamil Nadu had been granted under the express condition that no new colleges would be started.

The Minister pointed out that the centre and the UGC had taken this view since a large section of the population were still illiterate and the primary objective was to provide universal elementary education to the vast masses.

## Indus script deciphered

The Indus script which was considered undecipherable has been deciphered by Prof. S.R. Rao, a senior archaeologist who is now a Nehru Fellow. These achievements have been vitally acclaimed by leading archaeologists all over the country. The deciphernment has brought to light that the pioneers in simplifying a picture writing into an alphabatic one were the Harappans, as the Indus valley people are known. Dr. Rao said that we had succeeded in deciphering the writing on as many as 1,8 0 seals. The Indus valley people, the authors of the oldest civilisation of India, have left for posterity as many as 3,000 seals and seal-impressions bearing short inscriptions in which pictures of birds, animals and insects appeared side by side simple cursive signs resembling modern English or Roman alphabets. Ever since Harappa and Mohenjo-Daro, which are now in Pakistan, were discovered in the early Twenties of this century and excavated in the Thirties, attempts were being made by scholars to decode the enigmatic writing on the seal. Dr. Rao said with the decipherment of the script, it could be said that the greatest contribution of the Indus valley civilisation to the progress of mankind was the invention of the alphabet, though the Greeks added a a few vowel signs.

Prof. K.D. Bajpai, President of the Epigraphical Society of India and the Archaeological Society of India, has said that "Dr. Rao's conclusions are convincing. He has proved with adequate documentation that the Indus script furnishes the first important clue to the origin of alphabet".

## Classified Advts.

**PANJAB UNIVERSITY**
**CHANDIGARH**
**Advertisement No. GP/MI-80**

The Vice-Chancellor will be glad to *correspond with eminent scholars who* have won recognition and published work of high quality and/or are actively engaged in research with ten years' experience of teaching & or research for appointment as Professor, State Bank of India Chair in Entrepreneurship and Rural Development in the Department of Commerce and Business Management.

Initially the tenure of this Chair is five years and will be renewable for *further periods as may be decided by* the University. The incumbent will be expected to supervise and conduct research studies, publish research findings and guide Ph.D. scholars in addition to participation in regular teaching and training programmes of the Department. The post will be in the grade of Rs. 1500-60-1800-100--2000-125/2-2500 *with allowances as admissible* under the rules.

Those interested are required to write to the Vice-Chancellor enclosing their bio-data with a list of their published work by **October 20, 1980**.

**PUNJABI UNIVERSITY**
**PATIALA**

**Corrigendum to Advt. No. 40/PRO/SPS/EST/80 published in this Issue on page 553**

The last date for receipt of applications for the post of Lecturer in Geography only, both direct and through proper channel, would be ***October 7, 1980*** *and not October* 14 and 17, 1980 as already notified.

**REGISTRAR**

### Pantnagar to train officers

The Directorate of Extension of the G.B. Pant University of Agriculture and Technology has prepared a programme to provide training to officers of various government departments and nationalised banks in new agricultural technology in the next four months. The officers expected to participate in the programme belong to IAS, PCS, UP Agriculture Service, Defence Services and Rural Development Service of State Bank of India and Bank of India. The duration of these courses will vary from fifteen to thirty days. The trainees would be acquainted with the new agricultural technology for increasing production of various groups of crops. They would also be imparted training in allied occupations like dairy, poultry farming etc. Field trips to various research centres will also be organised for spot study.

### Varsity makes Punjabi compulsory for its jobs

Dr. Bhagat Singh, Vice-Chancellor, Punjabi University, Patiala, said that the knowledge of Punjabi would be made compulsory for those seeking employment in the university. The Vice-Chancellor informed that the agenda and proceedings of the meetings of the Senate, Syndicate and the Academic Council were being circulated in Punjabi. 85% of the work in the university offices was also being carried out in Punjabi. The State Government has also decided to allow Punjabi as the medium of instruction for the State Civil Service Examinations.

### National law institute proposed

The Bar Council of India is planning to set up a National Institute of Law. The project is estimated to cost nearly Rupees seven crores. It would be located in a State which could provide 30 acres of land and bear 50 per cent of the cost. Mr. Ranjit Mohanty, Chairman of the Council, made a statement to this effect in Vishakhapatnam. According to him the institute would be a residential one and would make selection of bright students from all over the country for specialised training in different legal fields.

### Salam honoured by Physics Association

The Indian Physics Association, the largest organisation of physicists in the country, has decided to bestow its first award to Prof. Abdus Salam, the noble laureate who heads the International Centre for Theoretical Physics in Trieste, Italy. Prof. Salam who was born in Pakistan and is a domicile of England is being honoured with the R.D. Birla Memorial award for his fundamental contribution in physics. Prof. Salam's work in unifying the week and electromagnetic interactions among the sub-atomic particles won for him the Noble price in Physics for 1979 along with Prof. Glashow and Prof. Weinberg of the United States of America.

---

# Autonomy Regained

The recent promulgation of university ordinances in Bihar is a step in the right direction. The campuses were afflicted with variety of problems. But the maintenance of law and order of late had assumed a paramount importance. The frequent gheraos and ugly demonstrations had become the order of the day. In this context the university Proctors to be appointed under the provisions of the new ordinances will go a long way in restoring peace in the universities. If imaginatively used, the proctorial system and the court of honour can provide an effective mechanism through which much can be achieved with dignity and decorum. The entry of police on the campus equally disliked by civil authorities and the university community can now be avoided in most cases. Proctor being a person of authority having an ex-officio membership of various decision-making bodies of the university can effect a liaison between the students and the university. He can be the mouthpiece of students grievances and their genuine demands. He can also be their sincere adviser on various academic and non-academic matters. His timely actions can avoid many situations becoming critical on the campus. He can indeed absorb many stresses and strains.

The declaration of the examination staff as "public servants" by the State Government during the examination period will now ensure adequate protection for the invigilators. This was in fact demanded by teachers and Karamcharis all along. With these safeguards, examinations hereafter an expected to be conducted without much hinderance. The sanctity of the examinations must be restored at all costs. The examination schedules which have been lagging far behind must be rigidly followed to avoid any further demand to the interests of students.

The revival of selection committees in the universities and taking away the work of faculty selections from the purview of the State Public Service Commission and University Commissions will re-establish the autonomy of universities. The Association of Indian Universities has been emphasising almost for a decade on the State authorities to allow the universities to exercise their basic right to select their own teachers. Once this has been conceded the ball has moved to the court of the universities. It should be played well. All fears of nepotism and caste considerations should be allayed and only the best personnel should be allowed to get into the portals of higher education, who can earn credit for their alma mater.

# News from Agril. Varsities

## Ranchi agricultural college celebrates its silver jubilee

Dr A.R. Kidwai, Governor of Bihar, while inaugurating the year-long silver jubilee celebrations of the Ranchi Agricultural College reminded the farm scientists of the stupendous task of fulfilling the aspirations of the people for agro-economic development of the tribal belt of Chotanagpur. Dr Chandrika Thakur, Special Officer of the proposed Birsa Agricultural University presided at the function.

The Governor recalled the contributions of the college which completed 25 years of existence and took scientific farming on the doorsteps of the people of the region. He stressed the need for heart searching by the scientists involved in the task and asked them to look back to their achievements and shortcomings. This was a crucial occasion for analysing the shortcomings. The Governor called upon the farm scientists to create agro-climatic conditions to meet the challenge of scientific development of one of the economically most backward regions of the country.

In his presidential address Dr. Chandrika Thakur explained the objective of the proposed Birsa Agricultural University at Ranchi which he said did a lot for the development of Adivasis.

## Indian scientists abroad offer short services

Nearlly 250 scientists of Indian origin settled abroad have offered to lend their services for some weeks to help in the country's development. The offer is being examined at the manpower division of the Council of Industrial and Scientific Research, New Delhi. Most of these scientists are now in the US. Canada and West Germany. The Indian missions in a number of countries were some time ago asked to send particulars of outstanding engineers and technologists who could spend some time in Indian Industries and suggest improvements. The step was in pursuance of a project on the transfer of know-how through expatriate specialists of Indian origin, being funded by the United Nations Development programme.

The programme, is oriented to solving technical problems faced in various public and private industrial establishments. A similar project aided by UNDP in Turkey was utilised by authorities in Istanbul to finance trips by Turkish scholars to home to lecture at universities.

The Council is examining communications from various industrial organisations which have problems that need handling through a high degree of technical expertise. It is somewhat like match-making. The visits by scientists were expected to begin towards the end of this year, when many of them can get leave from their psesent work. The scientists, who would come individually, are basically expected to provide specific technical inputs towards the development of the country in priority areas. The expenses on the scientists' travel and their daily subsistance allowance at UN rates during the stay here would be borne by UNDP. It has initially allotted 100,000 dollars to India from the allocation for this year.

## From test-tubes to fields

Horticulture scientists of Himachal Pradesh Agricultural University's Regional Fruit Research Station, Mashobra have developed test-tube plants of apple, cherry and poplar. According to Dr D.P. Sharma, these test-tube plants have been developed by the plant tissue culture technique. The plants grown by this technique provide extra rapid multiplication and disease-free varieties. This technique can revolutionise horticulture and forestry in Himachal. Dr Sharma says it is possible to produce more than one lakh plants in a year from a single shoot by this method. These plants are grown in test-tubes or conical flasks in a medium consisting of inorganic nutrients, sugar, vitamins and plant growth regulators. The experiments were started by Dr Sharma in 1977. But the programme got a boost in 1979 by the award of the project to this station which is running under the guidance of the world famous botanist, Prof P.N. Mehra. The scientists are now standardising techniques for transferring these test-tube plants to vulnerable field conditions. Efforts are being made to produce a virus-free strain of the "red gold" apple through this technique.

## Mango grafting perfected at Ratanagiri

The Konkan Krishi Vidyapeeth has standardised the technique of stone grafting for the production of Alphonso mangoes. Though this method of grafting is not altogether new but this is for the first time that efforts are being made to put it to commercial use. The Vidyapeeth is also imparting training in this method to farmers and extension officers of panchayat samitis. In this simple stone grafting technique a germinating mango stone is selected and the growing shoot is beheaded. In the slit made on an Alphonso budstick of 10 cm. to 15 cm. is fitted. The fastened graft is kept in a plastic bag or in an earthen pot and within a fortnight the buds start aprouting. A skilled worker can prepare around 100 grafts a day. Out of 650,000 hectares of identified fallow land, even if 100,000 hectares is to be brought under Alphonso cultivation about ten million grafts would be needed, warranting at least a few farmers in every village attaining proficiency in the stone grafting process. This would also mean reduction in transport cost and prevention of damage during transportation. There is a great demand for Alphonso mango graft in the Konkan region.

# News from UGC

## UGC team visits Jammu Varsity

A committee of the University Grants Commission consisting of Shri J.D. Sharma, Hony. Secretary, IUACE, Dr. A.K. Jalal-ud-Din of NCERT and Dr. M.L. Mehta, Deputy Secretary, UGC, visited the University of Jammu recently to assess the work of the Centre of Continuing Education for the Fifth Plan and to recommend further grants for the Sixth Plan period. The committee held a series of discussions with the administrative as well as the academic staff of the university. It also held discussions with the members of the advisory committee of the Centre.

As a result of discussions, the committee assured that grants amounting to more than Rs. 3 lakhs would be made available to the university during the Sixth Plan for catering to the needs of weaker sections of the society both in urban and rural areas.

The university will henceforth adopt one village to begin with where after conducting proper surveys the need of the community will be ascertained and both colleges and university academic community with active coordination of Adult, NSS, Education wings and other government agencies will work together to eradicate illiteracy, social evils etc. An attempt will be made to open a sub-branch of the centre of continuing education in each affiliated college of the university at Kathua, Udhampur, Poonch and Bhadarwah, who will carry out this programme in their respective areas. It was also decided to identify two schools in the far flung areas of the university where academic standard of the students will be improved so that they may be able to compete with their counterparts in main cities in higher competitive examinations. For affluent and middle class population only self-supporting courses will be started.

The university is also starting coaching classes for Company Secretaryship and Cost Accounancy within a month's time. Coaching classes to prepare candidates for various competitive examinations like NDA, IAS, Banking etc. wil also be started soon and the resource persons within the State will be actively trained to undertake this work.

## Gandhian fellowships awarded

The University Grants Commission has awarded three research associateships and two junior research fellowships for promoting research in Gandhian thought. These research associateships have been awarded to the holders of Ph.D. degree or those who had equivalent research work or field experience. The associateships are tenable for three years and could be extended by another two years. The awards are of Rs 1000/-, Rs. 12,00/- and Rs. 1400/- per month with a contingency grant of Rs. 2,000/- per year. The awards have been made to Dr. Shiela Sen of Jawaharlal Nehru University, Dr. Anthony Chrisppanath of Karnatak University and Dr. B. Prasad Pradhan of Utkal University. The junior research fellowships are of Rs 400/- per month for Gandhian studies. These are tenable for four years and the value can be raised to Rs 500/- after an assessment on completion of two years.

## Patna and Calcutta to start correspondence courses

The University Grants Commission has accepted in principle the proposal of Calcutta University to start correspondence courses for BA and BCom degrees. The Commission has approved a similar request of Patna University as well. With these, almost every State in the country will have facilities for correspondence courses. Many other universities are permitting students to appear privately at their examinations. At present 21 universities and one autonomous institution are offering correspondence course with assistance from Uuiversity Grants Commission. The number of students in these courses is about 1,15,000 excluding pre-university and intermediate classes as against nearly 26,00,000 students in the regular courses. The University Grants Commission has already approved in principle the starting of correspondence courses for the degree of Master of Business Administration. The programme will be initially introduced in three universities.

## Personal

1. **Prof. R. N. Dogra has been appointed Chairman of the Board of Governors of the *Indian Institute of Technology, Kanpur*.**
2. **Prof. B.S. Ramakrishna has *taken over as the Vice-Chancellor of the University* of Hyderabad.**
3. **Dr. M. Nagaraj, Professor of Botany, Bangalore University, has been appointed Vice-Chancellor of Gulbarga University.**
4. **Prof. Sheik Ali, Head of the Department of History, Mysore University, has been appointed Vice-Chancellor of Mangalore University.**
5. **Dr. G. L. N. Rao of the Jamshedpur Cooperative College, has been invited by the USSR Academy of *Sciences to participate in the International Symposium on Generalised Functions & Application to* Mathematical Physics to be held in Moscow during November, 1980.**
6. **Mr. G.S. Sivia, Deputy Secretary (Sports), AIU, has been appointed Hony. Secretary of the Amateur Athletic Federation of India for 1980-81.**

# Foreign News

## Cambridge team at Taxila

An archaeological team from Cambridge University has gone to Pakistan to find how the ancient city of Taxila developed into the principal town of the Indus-Jhelum and Doab region. Recent explorations at Taxila, according to the Cambridge team, reveal that it might have been one of the earliest and longest-occupied urban centres in South Asia.

Discovery of pottery dating back some 4,000 years at the site, shows that Taxila was occupied at the end of the Indus civilisation and continued to be inhabited till at least a few hundred years before the beginning of the Christian era.

Earliest deposits previously found at the site date from 500 BC when the area became part of the Persian Achaemenid empire. Alexander the Great is said to have spent a few weeks in the city in 326 BC.

Nearby, in the small valley, three separate city sites are known, the earliest two being the Bhir Mound with several successive periods from the sixth to second century BC.

The third city site, Sirkap to the north-east, is a planned settlement with an acropolis and a lower town. Founded by the Greeks in the second century BC, it is enclosed by a 55 km long wall.

New discoveries have been made within the southern part of the site at the western end of the Hathial ridge which forms a natural acropolis.

The Cambridge team noted a deposit of occupation more than two metres deep cut by a modern cemetery. At the base was found red paint as at the ancient site of Kot Diji in Sind province.

It is considered likely by the Cambridge team that more than 12 metres of deposits piled up in the Hathial ridge area in the last few centuries before the advent of the Christian era to form the Sirkap acropolis.

The fortified acropolis, they think, must have been built around the time of Alexander the Great and before the laying out of the urban site to the north. At an earlier period, Taxila must have been an Achaemenid town.

## British financial assistance for Indian students

Thirtyone Indian post-graduate students, mainly in the fields of science and technology, have won financial awards from a British scheme supporting Overseas Research Students Fees for the 1980-81 academic year. This is the second largest number of awards won by a Third World country. The scheme is run by the British Committee of Vice-Chancellors and Principals. Malaysia tops the list with 39 awards. In all, 561 awards were made to students from 65 countries; 287 of the awards were to students from Commonwealth countries. The value of the award is the difference in fees for a British post - graduate student and an overseas post-graduate student. The awards will be renewed for a second and third year subject to the satisfactory progress of the students concerned.

## Indo-British collaboration in science teaching

Three British science teachers are visiting India next week to take part in a science teacher-training workshop in Hyderabad organised by the Central Board of Secondary Education (CBSE) in collaboration with the British Council. The British visitors —Dr. Fairbrother, Mr. May and Mr. Gillard—are financed jointly by the British technical co-operation programme to India and by CBSE. The workshop will follow up a nine-month training course at Chelsea College, University of London, where two groups of nine secondary-stage science teachers from India have had special training in modern methods of science teaching and the writing of curriculum material. A third group will shortly leave for similar training.

## UK scholarships for Indian students

Two people from Delhi have won Rhodes Scholarships to Oxford for 1980-82. They are Miss Amrita Cheema, who has an M.A. from Delhi University and is to read for an M. Phil. in History at Exeter College, Oxford, and Mr. Rajeev Kalaswad, who has an M.A. from Bangalore and is to read for an Honours degree in English at St John's College, Oxford.

Rhodes Scholarships have been awarded in India since 1946. The founder, Cecil Rhodes, hoped that Rhodes Scholars would have as their highest aim the performance of public duties.

Ten other Indian scholars have been awarded Inlaks scholarships to British universities for 1980-82. They are Sanjay Kathuria, Aminava Sen, Amlan Dasgupta, Sanjeev Agarwal and Nandita Narain, who are going to Oxford colleges; Gaiti Hasan, Mukul Kesavan and Geeta Luthra, who are going to Cambridge colleges; Mukund Padmanabhan, who is going to the London School of Economics; and Anupam Srivastava, who is going to Imperial College, London.

The Inlaks Foundation was set up in 1976 by the late Shri Indu Shivdasani. Every year the Foundation awards a number of scholarships to outstanding Indian students for post-graduate studies in the United Kingdom.

## ROKKAN Prize in comparative research

The International Social Science Council, in conjunction with the Conjunto Universitario Candido Mendas (Rio de Janeiro) is setting up a bi-annual PRIZE named after Stein ROKKAN in homage to the memory of this great scholar, to be awarded every two years, starting in 1981, and amounting to U.S. $2,000.

The Prize is intended to crown a seminal contribution in comparative social science research written in English, French or German, by a scholar under forty years of age on 31st December 1981. It can be a manuscript or a printed book or collected works, in each case published after 1979.

Four copies of manuscripts typed double space or of printed works shall be delivered together with a formal application for the prize to the International Social Science Council before 31st March 1981. Manuscripts and publications received shall not be returned.

Works submitted shall be evaluated by the International Social Science Council with the assistance of appropriate referee or referees, under the supervision of the European consortium for Political Research (ECPR) and its Chairman. The AWARD shall be made by the ISSC General Assembly meeting in November 1981 on the recommendation of the ISSC Executive Committee. Its decision shall be final and not subject to appeal or revision.

The amount of the Prize may be shared by two or more applicants, should it be found difficult to adjudicate between equally valuable works submitted.

For further enquiries, please write to the Secretary-General International Social Science Council, Unesco, 1 rue Miollis, 75015 Paris, France.

---

# Sports

## NIS draw up coaching schedule for Asiad teams

*The Union Government* have approved a new financial pattern for holding coaching camps in preparation for the 1982 Asian Games, according to Mr R.L. Anand, Director of the Netaji Subhash National Institute of sports. A special feature of the new pattern is that diet allowance per day for trainees has been raised from Rs 16 to Rs 19 including *Re 1 lodging expenses. However,* diet allowance for participants in coaching camps for national and international competitions other than those for the Asian Games would continue at the old rate of Rs 16 per day.

Under the new financial pattern, sports federations have been allotted first two camps of six-week duration and third camp of four-week duration per *annum* effective from the current year. At first camp, the number of participants would be four times of those expected to participate in the Games. It would be reduced to three times at the second camp and double of the actual number of participants at the third camp. Coaching camps for other international meets would be in addition to these camps. The director said that about Rs 40 lakhs were expected to be incurred on diet expenses of the camps for the Asian Games. He said that the first athletic camp for men in preparation for the Asian Games had begun at the institute on Sept 8. Ninety athletes were invited for this camp but so far 50 had turned up. For 60 women athletes, a similar camp began at Bangalore from Sept 8. Mr R.L. Anand said that he had proposed to the Haryana Government to hold wrestling camps for the Asian Games at Rai where Asian wrestling would be staged. Mr Anand said that the Rajasthan Government had agreed to stage the sixth National sports festival for women at Jaipur from Nov 19 to 23. They had, however, expressed their inability to organise swimming competitions because of cold weather in November. Efforts would be made to stage these competitions at some other place. The Director also revealed that the finale of the All-India rural sports would take place at Chandigarh when competitions in football, volleyball and gymnastics would be organised from Jan 18 to 21. On the last day, an overall rolling trophy worth over Rs 6,000 would be awarded to the victorious team.

## Prize competition for published literature in physical education

Under the Scheme of National Prize Competition for the Published Literature on Physical Education and Sports etc. sponsored by the Society for the National Institutes of Physical Education and Sports (SNIPES), the Lakshmibai National College of Physical Education, Gwalior invites entries from Publishers and Authors of books published on Physical Education, Sports, Recreation, Health Education and Yogic Physical Culture for the Eleventh National Prize Competition.

The prize will be given to published original works of high standard in Physical Education Sports etc. These prizes will be awarded to the authors of books, if any, *adjudged to be sufficiently high* quality to merit a prize in the Competition, There will be five prizes of the value ranging between Rs 1500 to Rs 5000 each.

Last date of receiving entries is 30th November, 1980. For entry form and the rules of the competition please write to the Principal, Lakshmibai National College of Physical Education, *Shaktinagar, Gwalior 474 002* (M.P.) enclosing a self addressed envelope of 23 x 10 cm.

## World wrestling to be held in India

India will host the second World Arm Wrestling championships at Calcutta in October this year. Eight countries—USA, Canada, Brazil, Australia, Bangladesh, the United Kingdom and Japan—are expected to participate in the championships. The first World Arm Wrestling championships were held last year in Canada and was attended by only four countries.

# THESES OF THE MONTH

## A list of Doctoral Theses Accepted by Indian Universities

### SOCIAL SCIENCES

**Anthropology**

1. Puri, Veena. Afghanistan: A social and cultural study. University of Poona.

2. Srinivasan, Sankaran. Bio-cultural variations among four Tamil speaking Brahman populations. University of Poona.

**Psychology**

1. Deshmukh, Kalyani Prabodhachandra. Personality characteristics of the physically handicapped. Nagpur University.

2. Ezekiel, Lachhman Singh. Superstitiousness: Its personality correlates among the college teachers. Nagpur University.

3. Gupta, Anuradha. Indices of psychological stress related to level of aspiration and achievement motivation. Ravishankar University.

4. Tewari, Ashta Nand. An empirical study of the development of achievement motive as a function of prolonged deprivation. University of Gorakhpur.

**Sociology**

1. Seetha Lakshmi, A.G. Land and society. University of Delhi.

2. Singh, Sohanpal. Gramin samudaya mein vibhin jatiyon kee vyavsayik gati sheelta ka samajshastriya adhyayan (Hindi). Jiwaji University.

***Political Science***

1. Deol, Harmander Singh. A study of political elite in Punjab with special reference to legislators. Panjab University.

2. Hirawat, Saroj. Governor in the Indian State: Power profile and role identification. University of Rajasthan.

3. Kaviraj, Sudipta. Split in the Communist movement in India. Jawaharlal Nehru University.

4. Krishna Swamy, V.R. Socio-economic justice in Tamil Nadu: An analysis of public policy since 1967. Karnatak University.

5. Shrivastava, Kamata Prasad. Madhya Pradesh mein July 1967 va March 1969 ke madhya mein karyarat sanvid (Sanyukt Vidhayak Dal) shasan ka samikshatmak evam vishleshanatmak adhyayan (Hindi). Jiwaji University.

6. Singh, Krityanand. India's attitude towards Nepal, September 1946—March 1963. University of Bihar.

7. Sudesh Raj. Union Territories in Indian Constitution. Panjab University.

**Economics**

1. Arya, I.C. Size, technology and productivity of cement industry in India. University of Rajasthan.

2. Cauvery, R. The Economics of powerloom weaving complex in Salem District with particular reference to Momarapalayam, 1977. University of Madras.

3. Dar, Khurshid Ali. Financial management of public sector undertakings of Jammu and Kashmir State. University of Kashmir.

4. Das, Manoranjan. Problems and prospects of agricultural taxation in Orissa. Berhampur University.

5. Divakara Rao, Tyda. Burden of Indian taxation, M.S. University of Baroda.

6. Parikh, Manda Ramlal. A critique of foreign trade policy of a developing country with special reference to India. M.S. University of Baroda.

7. Ramaiah, P. Tribal economy in Telangana with special reference to the Warangal District. Kakatiya University.

8. Singh, S.K. Growth and pattern of state expenditure: A case study of Rajasthan State, 1956-57 to 1975-76. University of Rajasthan.

9. Venkata Ramana, Kotturi. India's trade with the socialist countries of East Europe. Andhra University.

**Public Administration**

1. Joshi, Mohan Chandra. Local administration in Arunachal Pradesh. Gauhati University.

**Education**

1. Goswami, Dibya Hash. University administration in North East India. Gauhati University.

2. Hirunval, Arani Prasert. A study of pupils' self-concept, academic motivation, class-room climate and academic performance. M.S. University of Baroda.

3. Majagi, Ishwar Mallappa. Developing a battery of tests for selecting candidates to teacher education courses. Karnatak University.

4. Parlikar, Kalpana Romeschandra. A study of suitability of programmed learning in home science education for adolescent girls. M.S. University of Baroda.

5. Portia, R.R. Structure and functioning of the academic departments of an Indian university : A case study. Andhra University.

6. Sukumaran, D. A status study of English medium schools in Maharashtra. University of Poona.

7. Upadhyaya, Dineshchandra Ganpatishankar. Construction and standardization of the proficiency test in English for secondary school teachers of Gujarat. Sardar Patel University.

8. Varshney, N.C. Organizational climate of different types of schools and reactions to frustrating school situations among adolescent boys studying in these schools. University of Rajasthan.

9. Vyas, Vasumati Chimanlal. Factors affecting the teacher morale. M.S. University of Baroda.

**Commerce**

1. Gupta, Sat Paul. Population, population control and the problem of unemployment in Jammu and Kashmir State. University of Jammu.

2. Nagaraja Naidu, V. Finances of Andhra Pradesh State Electricity Board. Sri Venkateswara University.

### HUMANITIES

**Philosophy**

1. Balasubramanian, P. Concept of presupposition : A study. University of Madras.

2. Paik, Madan Mohan. A study of some personality dimensions and backgrounds of juvenile delinquent behaviour. Rabindra Bharati.

**Linguistics**

1. Nath, Mrinal Kanti. A semantic study of Sanskritic lexis in early Bengali. University of Calcutta.

2. Sahu, Bhagwat Prasad. Sabariya boli ka rupkriyatmak adhyayan. Ravishankar University.

## Literature

### *English*

1. Agrawal, Balram Prasad. Mulk Raj Anand : A study of miseries, struggles and splendours in his fiction. Ravishankar University.
2. Chatterjee, Shymal Kumar. Emerson and Tagore: A comparative study. Visva-Bharati.
3. Chavan, Sunanda Pratapraje. Contribution of women poets to Indian poetry in English, 1850-1970. Shivaji University.
4. Lahiri, J.N. Aspects of life in the novels of E.M. Forster. North Bengal University.

### *Sanskrit*

1. Bagchi, Santi. Studies in Satapatha Brahmana. University of Calcutta.
2. Gulshan Kumari. Mahamahmopadhyaya Sri Srijiva Nyayatirtha ke natak. University of Delhi.
3. Jalaji, Ramnika. Moral codes as prescribed for women in the Smritis. University of Jammu.
4. Mishra, Jai Govind. Studies in the philosophy of Asanga. University of Gorakhpur.
5. Ravindra Devi. Jain stotra samiksha based on Mahavira and Parsvanatha. University of Delhi.

### *Hindi*

1. Gupta, Nirmal. Dwivedi yug kee prishthabhumi mein Ayodhya Singh Upadhyaya Hariaudh ka vishisht adhyayan. University of Jammu.
2. Lavate, Sunil Shripad. Yashpal : Vyaktitv aur krititv. Shivaji University.
3. Mehta, Saroj. Rajasthani evam Punjabi bhashaon ka tulnatmak roop vaigyanik adhyayan. University of Rajasthan.
4. Pandey, Ashok Kumar. Madhyadeshiya Hindi ke unmesh kal ka shabd vaibhav, 1399-1503. Jiwaji University.
5. Satyadeo, Shobha. Sanskrit alankarashastra ke san*darbh mein Maharaj Jaswant Singh* ke *Bhasha Bhushan* ka shastriya anusheelan. University of Gorakhpur.
6. Shakuntala Devi. Upanyaskar Varindavanlal Verma ke nari patron ka swarup. Panjab University.
7. Sharma, Sheela. Sathottar Hindi kavita kee samajik chetna. University of Gorakhpur.
8. Shashi Prabha. Structural study of contemporary Hindi drama, 1950 to date. Panjab University.
9. Tewari, Sudhakar. *Hindi Purvi lok sahitya mein prakriti.* University of Gorakhpur.
10. Thakur, Kavishwar. Swatantrottar Hindi kavita mein rashtriya-antarrashtriya awabodh ka shaikshik adhyayan. University of Bihar.
11. Yugal Kishore. Dinkar kee kavya chetna. Panjab University.

### *Urdu*

1. Faroqui, Abdulquader Gayasoddin. Urdu poetry and sufism : Historical survey and critical estimates. Shivaji University.

### *Oriya*

1. Das, Ajit Kumar. Oriya geeti natya-o-Tara Bikashdhara. Utkal University.
2. Panda, Lakshmidhar. Upendra Bhaja sahityare samaj chitra. Utkal University.

### *Marathi*

1. Choudhari, Shalini Wasudeo. Mahim Bhatt : Vyakti va Vangmay. Nagpur University.
2. Kulkarni, S.P. Madyhayugeen Marathiteel Sundarkande : *Ek chakitsik abhyas.* Nagpur University.

### *Persian*

1. Jalli, Kulsoom. Riyazush Shuara. University of Calcutta.

### *Tamil*

1. Alagiah, V. Antony John. Bible and Kural: A comparison with special reference to Biblical Proverbs and Song of Songs. University of Madras.
2. Amirthalingam, D. Treatment of poverty in Tamil poems. University of Madras.
3. Bhagavathi Ammal, K. Costumes of the Tamils. University of Madras.
4. Gurunathan, R. Characters in Akilan's novels. University of Madras.
5. Jayaprakash, N. Literatures of Maraimalai Adigal. University of Madras.
6. Mallica, G.M. The philosophy of Advaita as expounded in Srimad Bhagavata. University of Madras.
7. Murthy, D. A critical study of the common vocabulary of Tamil and Malayalam. University of Madras.
8. Rajamanickam, V. Tolkappiyar's literary techniques. University of Madras.
9. Sethu, R. Contribution of C.N. Annadurai's short-stories and novels for social renaissance in the 20th century. University of Madras.
10. Thangaraju, M. Stage Drama in Tamil, 1967-78. University of Madras.

### *Malayalam*

1. Prabhakaran, P.K. Impact of translation from English on Malayalam with particular reference to Pavannal by Nalappat Narayana Menon. University of Madras.

### *Telugu*

1. Lakshmana Reddy, V. The origin, growth and development of Telugu journalism. Nagarjuna University.

## Geography

1. Chackochan, P.L. Historical and cultural geography of Venadu, Travancore c A.D. 1124-1729. University of Poona.
2. Patil, R.G. Plant geography of Western Ghats in Maharashtra. University of Poona.
3. Patil, Shammukhagouda Rudragouda. Some aspects of urbanization in Karnataka. Karnatak University.
4. Shantaveerappa, H. Shimoga : A study in urban geography. Karnatak University.
5. Shri Niwas. Purvi Pathari pradesh main udyogikaran ka nagrikaran per prabhav. University of Gorakhpur.

## History

1. Bandyopadhyay, Suprasanna. Inscriptions of Tripura. *University of Calcutta.*
2. Behera, Dandapani. British annexation and administration of Ghumsur, 1836-66. Berhampur University.
3. Das, Bichitrananda. History of Mahuri, 1967-1850. Berhampur University.
4. Dutta, Promatha Nath. Impact of the West on the Khasis and Syntengs : A survey of political, economic and social changes, 1765-1874. Gauhati University.
5. *Ganguly, Sourendra Mohan. Leftism in India:* M.N. Roy and Indian Politics, 1920-48. Rabindra Bharati.
6. Ghosh, Shyamali. East Pakistan Awami League, 1958-71. Jawaharlal Nehru University.
7. Mathur, Vina Kumari. Role and position of women in the social, cultural and political life of Kashmir 7th to 16th century A.D. University of Jammu.
8. Ray, Dilip Kumar, Museum : Its role in military studies in India. University of Calcutta.

# CURRENT DOCUMENTATION IN EDUCATION

## A list of select articles culled from Periodicals received in AIU Library during September, 1980

### EDUCATIONAL PHILOSOPHY

Mitchell, Basil. "Religious education". *Oxford Review of Education* 6(2); 1980: 133-9.

Wilson, John. "Philosophy and education: Retrospect and prospect". *Oxford Review of Education* 6(1); 1980 41-52.

### EDUCATIONAL PSYCHOLOGY

Das, P.C. "Selection of courses of study by P.U. (Sc.) students". *Journal of Higher Education (Delhi)* 5(2); Autumn 79 : 236-42.

Lowe, Roy. "Eugenics and education: A note on the origins of the intelligence testing movement in England". *Educational Studies* 6(1) ; Mar 80: 1-8.

Tanwar, R.S. "Creativity and education". *Journal of Indian Education* 5(5); Jan 80 : 58-64.

### EDUCATIONAL SOCIOLOGY

Bhaneja, Balwant. "Parliamentary influence on science policy in India". *Minerva* 17(1); Spring 79 : 70-97.

Dennis, Norman. "Sociology, education anc equality in the sociology of education: A review of Halsay, Heath and Ridge's Origins and Destinations' ". *Oxford Review of Education* 6(2); 1980 : 111-31.

Woitrin, Michel. "Louvain-La-Neuve (Belgium): A new town built by and for a university". *Journal of Higher Education (Delhi)* 5(2); Autumn 79 : 203-10.

### EDUCATIONAL PLANNING

Carnoy, Martin. "Educational innovation in the third world". *Journal of Higher Education (Delhi)* 5(2); Autumn 79: 141-65.

### LIBRARIES

Deshpande, K.S. "University library services for a changing society". *ILA Bulletin* 16(1-2); Jan-June 80 : 10-18.

### TEACHING

Collier, K.G. "Peer-group learning in higher education: The development of higher order skills". *Studies in Higher Education* 5(1); Mar 80 : 55-62.

Lopez, Marie and Elton, Lewis. "A course taught through a learning centre: An evaluation". *Studies in Higher Education* 5(1); Mar 80 : 91-9.

### EDUCATIONAL RESEARCH

Avalos, Beatrice. "Teacher effectiveness: Research in the third world—highlights of a review". *Comparative Education* 16(1); Mar 80 : 45-54.

Hogan, Padraig. "A critique of education research". *Oxford Review of Education* 6(2); 1980 : 141-55.

Lambourn, David. "Seeing as a model of learning". *Oxford Review of Education* 6(2); 1980 : 197-206.

### EVALUATION

Balu, S.A. and Chandran, G.S. "Inter-examiner variability in assessing answer scripts of engineering sciences". *Journal of Higher Education (Delhi)* 5(2); Autumn 79: 224-28.

Braskamp, L.A. "Role of evaluation in faculty development". *Studies in Higher Education* 5(1); Mar 80 : 45-54.

Dressel, Paul L. "Models for evaluating individual achievement". *Journal of Higher Education (Ohio)* 51(2); Mar-Apr 80 : 194-206.

Ganesan, D. Raja. "A short training programme in question writing for college teachers". *Journal of Higher Education (Delhi)* 5(2); Autumn 79 : 255-60.

Gunasekaran, K. "A survey of the reappearance cases in M.A., M.Sc. and M.Com semester courses of the Madras University". *Journal of Higher Education (Delhi)* 5(2); Autumn 79 : 220-3.

Jan Mohammad. "Semester system at the undergraduate level". *College Development Council Bulletin* 1(1); Mar 80 : 63-68.

Misra, R.G. "Credibility of external examination marks". *Journal of Indian Education* 5(5); Jan 80 : 21-6.

Nagaratnam, S. "Semester system—An appraisal". *University News* 18(17); 1 Sep 80 : 469, 477.

Verma, Lokesh, K. "Analysis of re-evaluation cases in northern Universities". *Journal of Higher Education (Delhi)* 5(2); Autumn 79 : 213-20.

### ECONOMICS OF EDUCATION

DENMARK: Higher education and budgetary reform". *Council of Europe Newsletter* (1); 1980 : 9-10.

Khan, Q.U. "Higher education in India: Some issues". *Journal of Higher Education (Delhi)* 5(2); Autumn 79 : 167-82.

Tilak, Jandhyala, B.G. "Unit cost analysis of higher education". *Journal of Higher Education (Delhi)* 5(2); Autumn 79 : 183-93.

### PROFESSIONAL EDUCATION

Mukerji, S.K. "Developing colleges of basic sciences of humanities in agricultural universities". *Journal of Higher Education (Delhi)* 5(2); Autumn 79 : 195-201.

### ADULT EDUCATION

Bhatia, S.C. "Educating the poor". *New Quest* (22); July-Aug 80 : 235-9.

Ekambaram, E.J. "Teaching english by correspondence". *Journal of Higher Education (Delhi)* 5(2); Autumn 79 : 252-5.

Gour, P.N. "Public library services in India and National Adult Education Programme: A plea for their integration". *ILA Bulletin* 16(1-2), Jan-June 80 : 3-9.

### COMPARATIVE EDUCATION AND COUNTRY STUDIES

Court, David. "The idea of social science in East Africa: An aspect of the development of higher education". *Minerva* 17(2); Summer 79 : 244-82.

De L'ain, Bertrand. "The paths of French higher education". *Minerva* 17(2); Summer 79 : 283-304.

Dutt, Gargi. "Higher education in China". *Journal of Higher Education (Delhi)* 5(2); Autumn 79 : 157-66.

Mathai, Samuel. "Higher education and the university". *University News* 18(17); 1 Sep 80 : 470-4, 483.

Shills, Edward. "Government and universities in the United States". *Minerva* 17(1); Spring 79 : 129-77.

Zajda, Joseph. "Education and social stratification in the Soviet Union". *Comparative Education* 16(1); Mar 80 : 3-11.

## PUNJABI UNIVERSITY PATIALA

**Advertisement No.40/PRO/SPS/EST/80**

Applications are invited for the following posts:

1. **READERS**: (One each in Philosophy, Astronomy and Space Sciences, Economics, Political Science, English and Punjabi)
(Grade Rs. 1200-50-1300-60-1900)

**Qualifications**

(a) Good academic record with a doctoral degree or equivalent published work. Evidence of being actively engaged in (i) Research or (ii) Innovation in teaching methods or (iii) Production of teaching materials.

(b) About five years' experience of teaching and/or research provided that at least three of these years were as Lecturer or in an equivalent position. This condition is relaxable in the case of candidates with outstanding research work.

**SPECIALIZATION**

**Reader in Philosophy**

Indian Philosophy and/or Logic at doctoral level with the knowledge of Sanskrit.

**Reader in Economics**

(i) Economic Theory (Macro & Micro)
(ii) Economics of Industry
(iii) Public Finance
(iv) Economics of Development.

**Reader in Political Science**

(i) Modern Political Analysis
(ii) Contemporary Political Thought
(iii) International Politics.

**Reader in English**

(i) Literary Criticism
(ii) 19th Century Literature
(iii) 20th Century Literature.

**Reader in Punjabi**

Classical Poetry.

**Reader in Astronomy & Space Sciences**

(i) Stellar's Spectroscopy
(ii) Stellar Atmospheres
(iii) Stellar Structure & Evolution
(iv) Radio Astronomy
(v) Astronomical Techniques.

NOTE: Additional qualification for the Post of Reader in Economics, Political Science, English & Punjabi:

(i) Knowledge of Punjabi will be compulsory
(ii) Experience of Correspondence Courses will be given weightage.

2. **READERS IN LAW**: (Two)
(Rs. 1200-50-1300-60-1900)

**Qualifications**

At least a second class Master's degree in Law from a recognised University or its equivalent degree. Preference will be given to those who possess Doctorate in Law.

**Desirable**

About five years experience of teaching and/or research, out of which at least three years should be as Lecturer or in an equivalent position.

3. **LECTURER**: (One each in Philosophy, Astronomy and Space Sciences, Political Science, Geography & two in Economics) (Grade Rs. 700-40-1100-50-1600)

**Qualifications**

(a) A Doctor's degree or research work of an equally high standard in the relevant subject, and

(b) Consistently good academic record with first or high second class (B in the seven point scale) Master's degree in a relevant subject or an equivalent degree of a foreign University.

(c) Qualifications prescribed in (b) above are relaxable in case the research work of a candidate as evident either from his thesis or from his published work is of a very high standard. If a candidate possessing a Doctor's degree or equivalent research work is not available or is not considered suitable, a person possessing consistently good academic record (Weightage being given to M.Phil or equivalent degree or research work of quality) may be appointed provided he has done research work for at least two years or has practical experience in a research laboratory / organisation on the condition that he will have to obtain a Doctor's degree or give evidence of research work of equivalent high standard within five years of his appointment failing which he will not be able to earn future increments until he fulfils these requirements.

NOTE: Persons who have already applied for the post of Lecturer in Geography in response to our earlier advertisement need not apply again.

**Specialization**

**(Lecturer in Philosophy)**

Candidates having specialization in Sikh Philosophy will be preferred.

**Lecturers in Political Science, Economics and Astronomy & Space Sciences.**

Same as prescribed above for the Post of Readers in these subjects.

NOTE: Additional qualification for the post of Lecturers in Economics, Political Science, English & Punjabi:

(i) Knowledge of Punjabi will be compulsory
(ii) Experience of Correspondence Courses will be given weightage.

4. **LECTURER IN BUSINESS MANAGEMENT**: (ONE)

**Qualifications**

A Master's degree in Business Administration or M.Tech. degree in Engineering with first class with the proviso that the incumbent would acquire a doctorate degree within a period of 5 years. In the case of allied subjects like Industrial Psychology, Personnel Management, Business Statistics, Cost Accountancy etc. where lecturers could be recruited with qualifications other than MBA and M.Tech., the minimum qualifications would be the same as prescribed for the post of Lecturers under item 3 above.

**Specialization**

Personnel Management and Industrial Relations.

5. **MUSEUM CURATOR (HUMAN BIOLOGY)**: (ONE): (Rs. 400-40-800/50-950)

**Qualifications**

At least second class Master's degree in Human Biology/Anthropology from a recognised University with a degree or Diploma in Museology. The candidate must have experience of working in a Museum relating to Human Biology. The selected candidate may be required to conduct field work in remote areas. Preference will be given to those having Ph.D. degree or published research work of the equivalent standard.

6. **RESEARCH ASSISTANT**: (English): (ONE) (Rs. 550-20-650-25-750)

**Qualifications**

Candidates should hold a Master's Degree in English from an Indian University with atleast 50 % marks or above or should possess equivalent qualifications from a foreign University. Persons possessing M.Phil or having Research experience will be preferred.

7. **RESEARCH ASSISTANT (HUMAN BIOLOGY)**: (Rs. 550-20-650-25-750)

**Qualifications**

Candidate should be atleast Second Class M.Sc. (atleast 55% marks) in Human Biology or equivalent subject, with atleast three years' experience of research. Candidate with Ph.D. degree or equivalent published work on the problem relating to sports will be preferred.

8. **RESEARCH SCHOLARS**: (Two each in Tamil Chair and Physics and one in English) (Tenable for two years in the first instance @ Rs. 400/- p.m. all inclusive).

**Qualifications**

Candidates should possess at least second class Master's degree with at least one year teaching/research experience after obtaining Master's degree provided that the condition of experience may be relaxed in the case of first class M.A.'s/M.Sc.'s provided further that a candidate with at least 55% marks both in B.A./B.Sc. and M.A./M.Sc. could also be considered in case no first class M.A./M.Sc. is available.

**For Tamil Chair**

Candidates with M.A. in Anthropological Linguistics, with Specialization in

Tamil language, Linguistics & Culture will be preferred.

9. **JUNIOR RESEARCH FELLOWS** (U.G.C.) (Three) Department of Physics @ Rs. 400/- p.m. all inclusive for first two years and Rs. 500/- all inclusive for subsequent two years.

**Qualifications**

Junior Fellowship is open to persons preferably below the age of 30 years, who have obtained a Master's degree of a recognised University in the first or high second division (with at least 50% marks or B in the seven point grade system).

NOTE: Candidates for teaching and research posts should possess working knowledge of Punjabi upto Punjabi Praveshka standard. Persons from outside Punjab could however be considered for appointment but they will be required to give an undertaking in writing that they will acquire the requisite qualifications in Punjabi within a period of two years.

**GENERAL**

Higher start within the grade admissible depending upon the ability and experience of the candidate. House rent and Dearness allowance, Provident Fund and Medical facilities according to the University rules.

Applications complete in all respects on the prescribed form accompanied by a crossed Postal Order worth Rs. 5/- (Rs. 2/- for candidates belonging to Scheduled Caste/Tribes and Backward Classes) drawn in favour of the Registrar, *Punjabi University, Patiala*, should reach the University by **14-10-80**. The forms can be had from the Production & Sales Officer, Publication Bureau, Punjabi University, Patiala on payment of Re. 1/- by sending a crossed Indian Postal Order drawn in favour of the Registrar, Punjabi University, Patiala, alongwith a self addressed envelope of the size of 25× 10 cms. stamped with 30 paise postage which should be superscribed at the Top in bold letters REQUEST FOR APPLICATION FORM FOR THE POST OF———

Persons already in service should apply through proper channel. Government servants *who are not in a position* to submit their applications through proper channel before the due date should submit an advance copy before the due date and regular applications through proper channel by **17-10-80**.

**REGISTRAR**

---

## JAWAHARLAL NEHRU UNIVERSITY

**Advertisement No. Aca. III/9/80**

Applications are invited for the following posts:

### SCHOOL OF INTERNATIONAL STUDIES

**Centre for Studies in Diplomacy, International Law & Economics**

1. **Assistant Professor in International Law** (Temporary vacancy but likely to continue)

**Essential Qualifications**

- (a) Consistently good academic record with at least a high second class Master's degree in Law with International Law as Specialisation or its equivalent qualification from an Indian/foreign University; and
- (b) A doctor's degree or published work of an equally high standard.

**Desirable Qualifications**

Some teaching and/or research experience.

Provided that if the Selection Committee is of the view that the research work of a candidate as evident either *from his thesis or from his published* work is of very high standard, it may relax any of the qualification prescribed in (a) above.

Provided further that if a candidate possessing a Doctor's degree or equivalent work is not available or is not considered suitable, a person possessing a consistently good academic record (weightage being given to M. Phil or equivalent degree or research work of quality) may be appointed **provided he/she has done research work for at least two years or has practical experience in a research laboratory/organisation** on the condition that he will have to obtain a Ph.D. degree or give evidence of research work of equivalent high standard within five years of his appointment, failing which he will not be able to earn future increments until he fulfils these requirements.

**Scale of Pay**: Rs. 700-40-1100-50-1600 plus usual allowances as admissible *to the members of the staff in the* Central Universities.

**Centre for Soviet and East European Studies**

2. **Research Associate** (for a period of 3 years, extendable for another term not exceeding 2 years (Reserved for Scheduled Caste/Scheduled Tribe candidate, in the event of no Scheduled Caste/Scheduled Tribe candidate being found suitable, the post will be filled up from general category).

**Qualifications**

- (a) A first or high second class Master's degree in any of the *Social Sciences;*
- (b) A Doctorate Degree and Research experience in the field of Soviet Studies.
- (c) Proficiency in Russian Language.

**VALUE**

The Research Associateship will be awarded in any of the following three categories, and carries the following fixed consolidated emoluments and no other allowances:

- (a) Category 'A' Rs. 1000 per month
- (b) Category 'B' Rs. 1200 per month
- (c) Category 'C' Rs. 1400 per month

A contingency grant of Rs. 2000 per annum will be admissible to Research Associate.

Relaxation in any of the qualifications may be made (a) in favour of persons of eminence or of high academic/professional distinction and (b) in exceptional cases where adequately qualified persons are not available but are otherwise found suitable for the respective positions. It will also be open to the University to consider the names of suitable candidates who may not have applied.

The selected candidates will be expected to participate in the teaching and research programmes in the concerned disciplines in other Schools of the University as well as in the programmes offered in their own Centre of Studies.

Benefits of C.P. Fund-cum-Gratuity/G.P. Fund-cum-Pension-cum-Gratuity are available as per University rules in the case of Assistant Professor.

Persons already in employment should route their applications through proper channel.

Due consideration will be given to candidates belonging to Scheduled Caste/Scheduled Tribe at the level of Assistant Professor.

Second class (mail) rail fare (both ways) will be paid to candidates invited to appear for interview from outstation by the shortest route.

Applications separate for each post, on the prescribed form, obtainable free of cost from the Section Officer (Academic Branch-III) of the University by sending him a self-addressed and stamped envelope (affixing Postage stamps worth Rs. 2.85) of 23 cm × 10 cm. size should reach the Deputy Registrar (Academic) Jawaharlal Nehru University, New Mehrauli Road, New Delhi-*110067*, latest by ***21.10.1980***.

Candidates from abroad, applying for the faculty positions, may apply on plain paper, (but their applications should reach the University by the last date) furnishing all the relevant informations such as their names, date and place of birth, marital status, nationality; state of domicile; postal and permanent addresses; father's name and address; academic and professional attainments; full details of (a) publications, and (b) research projects undertaken; language(s) known; details of visits to foreign countries; and the names and addresses of at least two persons well acquainted *with the candidate's professional work* who should also be requested by the candidate to forward to the Deputy Registrar (Academic) confidential report concerning the candidate

---

## SAMBALPUR UNIVERSITY

**JYOTI VIHAR, BURLA**

**Advertisement No. 12678/Estt. II**

**9th September 1980**

Applications in the prescribed form alongwith attested copies of marksheets and certificates of all examinations passed are invited for appointment to the post of Professor in Training and Placement in University College of Engineering, Burla.

I. Scales of pay Rs. 1500-60-1800-100 2000-125/2-2500/-

II. The post carries usual dearness allowances and C.P.F.-cum-Gratuity benefits as would be determined by the University from time to time.

III. **Qualification**

(a) **Essential**

(i) First Class Master's Degree/Doctorate degree in Civil/Mechanical/Electrical / Electronics Engineering.

(ii) Ten years experience in teaching in a University or a Engineering College or in research or in an industrial establishment out of which at least five years shall be in an industrial establishment.

(b) **Desirable**:—Experience in guiding research.

Seven copies of the application forms will be supplied from the University Office to each candidate in person on cash payment of Rs. 15/- (Rupees fifteen) only. Candidates intending to receive forms by post are required to send (a) Crossed Postal Order of Rs. 15/- payable to the "FINANCE OFFICER", SAMBALPUR UNIVERSITY", (b) a self addressed envelope (23 cm x 10 cm) with postage stamps worth Rs. 3.30 affixed to it with the words "APPLICATION FORM FOR TEACHING POSTS IN SAMBALPUR UNIVERSITY" superscribed on it. Money Order/Cheque will not be accepted.

The last date for receipt of applications in the office of the University is **6.10.80**. The candidates will be required to appear for an interview before a Selection Committee at their own expense.

Issue of this advertisement does not make it binding on the University to make the appointment.

All communications should be addressed to the Registrar by designation only.

**B.B. Tripathy**
**REGISTRAR**

---

# INDIAN INSTITUTE OF TECHNOLOGY

## KHARAGPUR

**Advertisement No. R/4/80**
**18th September, 1980**

Applications are invited for the undermentioned posts at the Indian Institute of Technology, Kharagpur, West Bengal:

**I. Academic Posts**

The qualifications, experience etc. required for Professors, Assistant Professors and Lecturers are given below:

**(A) PROFESSORS**

**Scale of Pay**

Rs. 1500 -60 -1800 -100 -2000 -125/2-2500/- plus D.A. as admissible.

**Qualifications: Essential**

(i) A good academic record with a Bachelor's or Master's degree in the appropriate branch and a Doctorate degree.

(ii) Twelve years' experience in the field of specialisation prescribed, of which at least five years should be in teaching and/or research.

(iii) Published research work of good quality in journals of repute.

(iv) Experience in guiding research.

**Desirable**

(i) Experience of teaching post-graduate classes

(ii) Good design and/or industrial experience

N.B. : If a person is not found suitable for the post of Professor, he may be offered the post of Associate Professor, in the grade of Rs. 1500-2000/-

**(B) ASSISTANT PROFESSORS**

**Scale of Pay**

Rs. 1200-50-1300-60-1900/- plus D.A as admissible

**Qualifications : Essential**

(i) A good academic record with a Bachelor's or Master's degree in the appropriate branch and Doctorate degree.

(ii) Seven years' experience in the field of specialisation prescribed, of which at least two years should be in teaching and/or research.

**Desirable**

(i) Published research work of good standard.

(ii) Experience in guiding research.

**(C) LECTURERS**

**Scale of Pay**

Rs. 700-40-1100-50-1600/- plus D.A. as admissible

**Qualifications : Essential**

(i) A good academic record with a Master's degree in the appropriate branch.

(ii) Two years' professional experience.

**Desirable**

A doctorate degree.

(Some posts are reserved for SC/ST candidates)

In the event of non-availability of suitable SC/ST candidates, the reserved posts would be treated as unreserved.

**NOTE**: The following are applicable to Posts of Professors, Assistant Professors and Lecturers:

(a) In all cases experience means experience gained after obtaining the Master's degree.

(b) For the posts of Industrial Management Centre, Mining Engineering, Naval Architecture & Architecture & Regional Planning Depts, if suitable candidates with prescribed essential qualifications are not available then the minimum educational requirements may be relaxed.

(c) Relaxation of the minimum educational requirements may also be done in the case of candidates having outstanding research achievements or long and meritorious industrial/design experience.

Vacancies exist in the following disciplines and in the cadres noted against each. Applicants must clearly state the cadre and the discipline for which they are a candidate.

1. **Aeronautical Engineering** — Assistant Professors and Lecturers Specialisation in one or more of the following :
   Aerodynamics/Aircraft Structures/Aircraft Propulsion.
2. **Agricultural Engineering** — Professors, Specialisation in one or more of the following:
   Dairy & Food Engineering/Agricultural Engineering/Agricultural Sciences.
3. **Architecture & Regional Planning**— Professors, Assistant Professors and Lecturers,
   Specialisation in one or more of the following: Architecture/Urban Design/City Planning/Visual Design.
4. **Chemistry** — Assistant Professors and Lecturers Specialisation in one or more of the following: Inorganic Chemistry/Organic Chemistry/Physical Chemistry with specialisation in High Polymer/Rubber Technology/High Pressure Chemistry.
5. **Chemical Engineering**—Professors Specilisation in one or more of the following:
   Transport Phenomenon / Coal Process Engineering/Process Dynamics and Control / Chemical Plant Design/Unit Operation.
6. **Civil Engineering**—Professors, Assistant Professors and Lecturers Specialisation in one or more of the following:
   Environmental Engineering/Water Resource Engineering / Structural Engineering/Highway and Traffic Engineering/Soil Mechanics & Foundation Engineering.
7. **Computer Science & Engineering**— Professors. Specialisation in one or more of the following:
   System Hardware/System Software/Application Software/Microprocessor.
8. **Cryogenic Engineering**—Professors, Assistant Professors and Lecturers For Professors and Asst. Professor candidates with degrees in Mechanical or Chemical Engineering with experience of having worked in the field of Cryogenic Engineering are required. For Lecturers, candidates with a Physics background will also be considered.
9. **Electronics & Electrical Communication Engineering**—Professors, Assistant Professors and Lecturers Specialisation in one or more of the following:
   Microprocessor / Microelectronics / Microwave Engineering / Communication Engineering/Control and Automation.
10. **Geology & Geophysics**—Professors and Assistant Professors
    Specialisation in one or more of the following:
    Exploration and Mining Geology/Structural Geology / Chemical Petrology and Geochemical Pros-

pective /Sedimentary Geology/Exploration Sysmology / Paleontology.

11. **Humanities & Special Sciences**—Professors and Lecturers
Specialisation in English. For one of the posts of Lecturer the field of specialisation is French.

12. **Industrial Management**— Lecturers
A basic degree in Engineering followed by a post-graduate degree in one or more of the following:
Maintenance Engineering and Management / Industrial Management/Industrial Engineering and Operation Research.

13. **Material Science**—Professors, Assistant Professors and Lecturers.
Specialisation in one or more of the following:
Metals and Alloys/High Polymer/Ceramics.

14. **Mathematics**—Assistant Professors and Lecturers.
Specialisation in one or more of the following:
Objective Geometry / Electricity/ Functional Analysis/Statistics.

15. **Mechanical Engineering**—Lecturers
Specialisation in one or more of the following:
Production Engineering / Machine Design / Hydraulic Machine/Mechanics of Solids.

16. **Metallurgical Engineering**—Lecturers Specialisation in Mechanical Metallurgy. Candidates with some industrial experience in shaping of Metals and/or Welding will be preferred.

17. **Mining Engineering**—Professors and Lecturers.
Specialisation in one or more of the following:
Coal Mining/Mining Machinery / Ventilation/Metal Mining.

18. **Physics**—Assistant Professor.
Specialisation in one or more of the following:
Solid State Physics / X-rays and Structure of Matter.

19. **Post Harvest Technology**—Professor, Assistant Professor and Lecturer.
Specialisation in one or more of the following:
Market Economy / Rice Technology/Crop Process Engineering.

20. **Radar Communication** — Assistant Professor and Lecturer.
Degree in Electronics or Electrical Communication Engineering.
Specialisation in one or more of the following:
Fibre Optics / Digital Communications/Microwave.

21. **Rural Development**—Assistant Professor and Lecturer.

Specialisation in one or more of the following:

Rural Industrialisation / Technology and Energy Sources relevant to Rural Area/Urban-Rural and Industry—Agricultural Relationship / Agricultural Land Use and Water Management.
Candidates with experience in the actual implementation and evaluation of the rural development projects will be given preference.

**II. Professor** (Training & Placement)

**Scale of Pay**

Rs. 1500-60-1800-100-2000-125/2-2500/- plus D.A. as admissible.

**Qualifications : Essential**

(i) A good academic record with a Bachelor's or Master's degree in any branch of Engineering or technology and a Doctorate Degree.
(ii) 12 years experience of which at least 5 years should be in teaching and/or research.

**Desirable**

(i) Published research work of good quality in Journals of repute.
(ii) Experience in training & placement work.

**Note**: Relaxation of the educational qualifications may be done in the case of candidates having long industrial experience.

**Job Requirements**

The candidate will be required to be in-charge of the training and placement activities of the Institute. In addition he will be required to assist the Dean of Sponsored Research and Consultancy in the work of the Industrial Consultancy Centre of the Institute.

**III. Assistant Professor** (Liaison Officer Industrial Consultancy)

**Scale of Pay**

Rs. 1200-50-1300-60-1900/- plus D.A. as admissible.

**Age**

Preferably between 30 and 45 years.

**Qualifications**

The qualifications for this post are as stated above for the post of Assistant Professor with a degree in any branch of Engineering and Technology.

**Job Requirement**

The person recruited shall be required to assist the Dean of Sponsored Research & Consultancy in organising the Industrial Consultancy Centre of the Institute. He will also be the Liaison Officer between the industries of the region and the Institute with a view to promoting consulting activities.

**Note**: If the candidate is considered otherwise suitable, Ph.D. would not be a required qualification. The number of years of experience may be reduced if the candidate has a Ph.D. degree and is otherwise suitable.

**IV. Computer Centre**

**(A) ENGINEERS** (Shift)—2 posts
(One reserved for S/C candidates)

**Scale of Pay**

Rs. 700-40-900-EB-40-1100-50-1300/- plus D.A. as admissible.

**Qualifications: Essential**

B. Tech (or equivalent) in Electronics/ Electrical Engineering with mechanical aptitude or B. Tech (or equivalent) in Mechanical Engineering with Electronics/Electrical engineering aptitude, and 2 years experience in maintaining computers and peripheral equipments.

OR

M. Tech (or equivalent) in Electronics/ Computer Science.

**Desirable**

Demonstrated accomplishment in completing hardware project and experience in maintenance of a third generation system.

**(B) OPERATION MANAGER**—1 post

**Scale of Pay**

Rs. 1100-50-1600/- plus D.A. as admissible.

**Qualifications: Essential**

(i) B. Tech./B.E./M.Sc. degree
(ii) Demonstrated supervisory ability of managing a team of at least ten technical people.
(iii) Eight years experience in the operation of Computers, either in programming or maintenance.

**Desirable**

Experience with a third generation computer system.

**V. ENGINEER**

(Audio Visual Cell)—(1 Post)

**Scale of Pay**

Rs. 700-40-1100-50-1300/- plus D.A. as admissible

**Qualifications: Essential**

(i) Bachelor's Degree in Electronics & Electrical Communication Engineer or equivalent.
(ii) At least 5 year's experience in repair, design, fabrication, development and production of Audio visual equipment and entertainment electronic.

**Desirable**

Experience in supervising and repairing sophisticated equipment related to Audio Visual Unit.

**VI. SENIOR ENGINEER**

(Institute Press)—(1 post).

**Scale of Pay**

Rs. 1100-50-1600/- plus D.A. as admissible.

**Qualifications**

**Essential**

(i) A good degree/diploma in Printing Technology from a Institute of repute.
(ii) A minimum of 10 years experience in a reputable printing press of which at pleast 3 years should be in a managerial capacity.
(iii) A detailed knowledge of both letter-press and offset printing processes.

**Desirable**

(i) Experience in having work with Russian and English monotype machine and Russian Off set machine.
(ii) Practical knowledge of repairing and maintenance of printing machinery.

**VII. ASSISTANT ENGINEER**

(Mechanical)—(1 post)

**Scale of Pay**

Rs. 650-30-740-35-810-EB-880-40-1000-EB-40-1200/-
Plus D.A. as admissible.

**Qualifications : Essential**

(i) A graduate in Mechanical Engineering or equivalent.
(ii) A minimum of 3 years experience in the maintenance and operation of refrigeration and air-conditioning plants, room air-conditioners and water coolers.

**Desirable**

Experience of maintenance and servicing of petrol and diesel driven vehicles.

**NOTE**: Those who applied against Advertisement No. R/10/79 and R/2/80 need not apply again.

### VIII. ASSISTANT ENGINEER

(Sanitation)—(1 post)

(The post is reserved for ST candidates. General candidaes are also eligible to apply. The general candidates will be considered if no suitable ST candidates are available for appointment to the vacancy).

***Scale of Pay***

Rs. 650-30-740-35 - 810 - EB- 35-880-40-1000-EB-40-1200/- plus D.A. as admissible.

**Qualifications : Essential**

A graduate in Public Health Engineering or Civil Engineering with about 3 years or relevant experience in the field of sanitation.

OR

A three-year diploma in Public Health Engineering or Civil Engineering with about 7 years relevant experience in the field of sanitation.

**Job Requirements**

(i) Able to prepare estimates, design and supervise Civil construction works in sanitary works and water works and able to organise and supervise municipal services like sewage systems, garbage clearance, water systems, mosquito control, road maintenance and horticultural works etc.

(ii) Able to handle sanitation and the horticultural (Malis and sweepers) staff and organise municipal services, including handling and maintenance of stores.

(iii) Any other works as may be assigned by his superior in-charge or the Director.

### IX. ASSISTANT ENGINEER

(CIVIL)—(One post)

**Scale of Pay**

Rs. 650-30-740-35-810-EB-35-880-40-1000-EB-40-1200/- plus D.A. as admissible.

**Qualifications : Essential**

*Graduate in Civil Engineering with* a minimum experience of 3 years or diploma holder in Civil Engineering with a minimum experience of 8 years of which at least 5 years experience in Construction, Maintenance and Civil works of public health Engineering.

### X. SENIOR PHYSICAL TRAINING INSTRUCTOR (One post)

Post is reserved for Scheduled Caste/ Scheduled Tribe candidates.

**Scale of Pay**

Rs. 700-40-900-EB-40-1100-50-1300/- plus D.A. as admissible.

**Qualifications : Essential**

(i) Master's degree in Physical Education (two year course) or a Master's degree in Arts/Science with a Diploma in Physical Education from a recognised university. A minimum of 7 years' experience at University level in handling sports, games and cultural, activities is essential.

OR

A Bachelor's degree in Physical Education or a Bachelor's degree in Arts/Science with a Diploma in Physical Education from a recognised University. A minimum of 10 years' experience at University level in handling sports, games and cultural activities is essential.

(ii) Organisational and administrative ability with a working knowledge in *accounts, preparation* and maintenance of courts and playgrounds.

*(iii) Proficiency* in sports and games

**Desirable**

Diploma/Certificate in Yoga instructions from any recognised Institute.

### XI. ASSISTANT REGISTRAR

(1 post) Reserved for S/C candidates.

**Scale of Pay**

Rs. 700-40-900-EB-40-1100-50-1300/- plus D.A. as admissible.

**Qualifications : Essential**

(i) Good degree in Arts, Science, Commerce or Business Management.

(ii) Must have good knowledge of procedure of general administration or accounting of Cash and other transaction, preferably both, and be able to draft, reports and minutes of conferences.

(iii) At least 10 years' experience in a responsible position under Govt. or in a large Educational Institution or business organisation of repute.

**Desirable**

Experience of supervision of recruitment work, meeting and conference work, examination work, students' welfare work and proved capacity to understand students and their problems.

### XII. ASSISTANT LIBRARIAN

(1 post)

**Scale of Pay**

Rs. 700-40-900-EB-1100-50-1300/- Plus D.A. as admissible.

**Qualification : Essential**

First or Second Class B.A./B.Sc./ B.Com. Degree plus a First or Second Class M.Lib. Sc. Degree.

OR

First or Second Class M.A./M.Sc./ M.Com. Degree and a First or Second Class B.Lib.Sc. or a Diploma in Library Science.

**Desirable**

Experience of having worked in a large reputable library.

### XIII. COORDINATOR (TRAINING)

N.S.S. Unit—(1 post)

**Scale of Pay**

Rs. 1100-50-1600/- plus D.A. as admissible.

**Qualifications : Essential**

(i) Bachelor's degree in Engineering or a good Master's degree in Science or Humanities.

(ii) Field experience in Rural Development Work.

(iii) Experience in organising campus Seminars, training courses etc.

**Desirable**

Experience in printing and production or various types of booklets, brochures etc.

**Job Requirements**

To plan and organise various training activities, refresher courses, seminars, printing of booklets and bulletins and other NSS programme activities of the Institute.

Application form may be had from the Registrar on request along with an unstamped self-addressed envelope of size 23 cm. x 10 cm. Application accompanied with an application fee (non refundable) of Rs. 7.50 (Rs. 1.87 for *SC/ST candidates) payable by means of* crossed Indian Postal Order to Indian Institute of Technology, Kharagpur at Kharagpur-721 302 Post Office would reach the Registrar, IIT, Kharagpur-721 302 (West Bengal), by the **27 October, 1980**.

Applicants who are in the employment of Government/Semi-Government Organisations or of any Government undertaking must send their applications through proper channel.

A.K. Sur
**REGISTRAR**

---

## AGRA UNIVERSITY
### AGRA

Applications are invited for a permanent post of Lecturer in French for K.M. Institute of Hindi Studies and Linguistics, Agra University, Agra, in the grade of Rs. 700-40-1100-50-1600 plus allowances as per University rules. Applications on prescribed form must reach the undersigned *by name* latest by **October 24, 1980**. The applicants must specifically mention on the prescribed form as well as on the envelope, the post applied for. Form can be had from Assistant Registrar (Publications), Agra University, Agra on payment of Rs 5/- either in cash at the University counter or through Money Order for Rs. 8/-.

**Qualifications**

1. A doctorate in the subject concerned or a published work of high standard in that subject.

2. (a) Consistently good academic record that is to say the candidate should have obtained at least 50% marks in Higher Secondary (12 years course)/ Intermediate and first degree examination separately or a minimum average of 55% marks in the two examinations taken together.

(b) First or high second class that is to say more than 54% marks in Master's Degree in French or an equivalent degree of a foreign University in such subject.

3. Preference shall be given to those who also have Diploma /Certificate in German.

4. Where the Selection Committee is of the opinion that the Research work of a candidate, as evidenced either by his thesis or by published work, is of a very high standard, it may relax any of the requirements specified in clause 2(a) and (b).

5. If a candidate possessing a qualification prescribed in clause (1) is not available or is not considered suitable, a person possessing a consistently good

academic record (due weightage being given to M.Phil or equivalent degree or research work of quality) may be appointed on the condition that he/she will attain the prescribed qualification (namely doctorate or published work as aforesaid) within five years from the date of his/her appointment;

Provided that where the teacher so appointed fails to attain the prescribed qualification within the said period of five years, he/she shall not be entitled to yearly increments after such period, until he/she attains such qualification.

**S.B.B.B. Singh**
**REGISTRAR**

---

## INDIAN INSTITUTE OF TECHNOLOGY
### KANPUR

**Advertisement No. 25/80**

Applications are invited for one post of Senior Scientific Officer II in Central NMR Facility in the Department of Chemistry in the following pay scale:

Rs. 700-40-900-EB-40-1100-50-1300

**Qualifications**

Candidates must have at least B.E./B.Tech. degree in Electrical Engineering with specialization in Electronics.

Preference will be given to candidates with experience in the maintenance and operation of FT-NMR spectrometer systems and also familiar with electronics and computer hardware and software associated with NMR systems.

The post is contractual for a period of three years initially, extendable by a further three years at the end of which the candidate is eligible for consideration to a permanent post, and carry benefits in the shape of CPF Scheme. Besides pay, the post carries allowances according to the Institute rules, which at present correspond to those admissible to the Central Government employees stationed at Kanpur. Higher initial pay is admissible to exceptionally qualified and deserving candidates. Candidates called for interview will be paid second class railway fare from the place of duty to Kanpur and back by the shortest route.

Applications from persons in India should be made on prescribed form obtainable free of charge from the Registrar of the Institute by sending a self-addressed unstamped envelope of 25 cm x 10 cm size. Applications should be accompanied by a postal order of Rs. 7.50 (Re. 1.87 for SC/ST candidates).

Persons from abroad may apply on plain paper along with a complete biodata and names of three referees from whom reference letters may be obtained.

Applicants who are employed in a Government/Semi Government organisation or Institute, should send their applications through proper channel, else they will be required to produce a 'NO OBJECTION CERTIFICATE' from their employers at the time of interview.'

Applications should reach the Registrar, Indian Institute of Technology, IIT Post Office, Kanpur-208016 (U.P.), India on or before **October 25, 1980.**

---

## MAHARASHTRA ASSOCIATION FOR THE CULTIVATION OF SCIENCE RESEARCH INSTITUTE
### LAW COLLEGE ROAD
### PUNE-411 004.

Applications are invited for admission of research scholars for Ph.D. degree of University of Poona in the following disciplines:

1. Botany (Mycology & Plant Pathology; Systematic Botany and Ethnobotany; Plant Genetics)
2. Biometry and Statistics.
3. Chemistry (Organic, Physical and Biochemistry)
4. Geology and Palaeontology (Invertebrate Palaeontology, Stratigraphy)
5. Microbiology (including Agricultural Microbiology)
6. Zoology (Genetics and Cytogenetics; Entomology).

Candidates must possess *at least* a high second class M.Sc. degree in the respective disciplines and will be eligible for application for research scholarships (UGC, CSIR, MACS etc.)

Blank application forms with prescribed conditions can be had from Registrar, M.A.C.S. personally or on sending a Postal Order/M.O. for Re. 1/- drawn in favour of the Registrar, M.A.C.S., Pune 4 and a self-addressed envelope (size 9"x12") bearing stamps for 0.50 P.

Last date for receiving completed applications is **31st October, 1980.**

---

## UNIVERSITY OF DELHI

**Advertisement No. Estab. IV/66/80** **Dated September 23, 1980**

Applications on the prescribed form are invited for the following posts:

| Department | Designation |
|---|---|
| Economics | (i) *Four Professorships (One in Mathematical Economics)<br>(ii) Research Associates |
| English | Three Readerships |
| Botany | (i) *Three Readerships<br>(ii) Garden Coolie (One) (Reserved for Scheduled Caste) |
| Sanskrit (South Campus) | One Readership |
| Hindi | One Readership (Specialization: Drama & Stage Craft) |
| Campus Law Centre (Faculty of Law) | One Readership |
| Faculty of Science | *One Reader in History of Science and Scientific Methods |
| Modern Indian Languages | One Lecturership in Gujarati |
| Chinese & Japanese Studies | One Lecturership in Chinese Language |
| W.U.S. Health Centre | (i) One Medical Officer (Male)<br>(ii) Seven Part-time Medical Officers<br>(iii) One Nurse (Reserved for Scheduled Caste) |
| D.U. Computer Centre | One Key Punch Operator (Reserved for Ex-Serviceman)<br>Note: General candidates would also be eligible to apply. The General Candidates would, however, be considered only if no suitable Ex-Serviceman candidate is available for appointment to this post. |
| Chemistry | Two Technical Assistants (Temp. but likely to continue) (One each reserved for Scheduled Caste and Ex-serviceman)<br>Note: General Candidates would also be eligible to apply. The General candidates would, however, be considered only if no suitable Scheduled Caste/Ex-serviceman candidates are available for appointment to the vacancies reserved for them. |
| Anthropology | One Senior Laboratory Assistant (Temp. but likely to continue) |

Note: *Indicates that the posts are being readvertised. Those who have applied in response to the earlier advertisements (Nos. 58, 59 and 61) for these posts need not apply again, but in case they have any additional information to supply, they may do so.

The scales of the pay of the posts are:

Professor: Rs. 1500-60-1800-100-2000-125/2-2500
Reader: Rs 1200-50-1300-60-1900
Lecturer: Rs. 700-40-1100-50-1600
Research Associate : Consolidated monthly emoluments as under:

A—Rs. 1,000/- p.m. (Fixed)
B—Rs. 1,200/- p.m. (Fixed)
C—Rs. 1,400/- p.m. (Fixed)

On the recommendation of the Selection Committee.

Medical Officer: Rs. 700-40-900-EB-

40-1100-50-1300, plus non-practicing allowance as admissible under the University Rules.

Part-time Medical Officer: Rs. 500/- p.m. fixed
(Duty Hours : 3 hours daily)
Nurse: Rs. 425-15-560-EB-20-640
Tech. Assistant: Rs. 425-15-500-EB-15-560-20-700
Key Punch Operator: Rs. 260-6-290-EB-6-326-8-366-EB-8-390-10-400
(plus Rs. 20/- as special pay)
Senior Laboratory Assistant: Rs. 380-12-500-EB-15-560
Garden Coolie: Rs. 196-5-220-EB-232

All posts, except that of Research Associate and Part-time Medical Officer carry D.A., C.C.A. and H.R.A. as admissible under the rules in force in the University from time to time.

## ESSENTIAL QUALIFICATIONS FOR Professorships

A Scholar of eminence.

Independent published work of high standard and experience of teaching Post-graduate Classes and guiding Research for a considerable period desirable.

**Readerships**

Good academic record with first or high second class Master's Degree in the subject concerned with a Doctor's Degree or equivalent published work.

Independent published work (in addition to the published work mentioned above) with atleast 5 years' teaching experience in Honours/Post-graduate classes essential.

**Lectureship** (other than Chinese Language)

**Essential**

Good academic record with a first or high second class Master's Degree or an equivalent degree of a foreign University in the subject concerned.

Note: (Second class would mean atleast 50% marks in the subject or equivalent grade).

**Desirable**

(i) A Doctor's Degree or Evidence of Research work of equivalent standard in the subject concerned. (ii) Teaching experience of Degree/Post-graduate classes.

Provided if a teacher is not a Ph.D./M.Phil./M.Litt. at the time of his/her appointment and does not qualify himself/herself for the award of Ph.D./M. Phil./M. Litt. degree from a recognised University in a subject which is being taught by him/her within a period of five years from the date of his/her appointment or does not give evidence of research work within that period in the subject concerned, he/she shall not be entitled to any future increments after the expiry of the said period of five years till such time he/she fulfils the above mentioned requirements.

**Lecturer in Chinese Language**

(a) Good academic record with first or high second class Master's Degree or an equivalent degree of a foreign University in the subject concerned.
(Note: Second class would mean at least 50% marks in the subject or equivalent grade).

OR

(b) A graduate with three years' Diploma or its equivalent in the Language, followed by:
  1. Two years' training in the concerned Language area: or
  2. Three years' Language work outside the Language area.

OR

(c) A graduate with two years of Language training in the concerned Language area, followed by
  1. Two years of Language work outside the Language area: or
  2. One year of Language work in the concerned language area (i.e. 3 years altogether in the area).

**Research Associateship**

Consistently good academic record with first or high second class (B+) Master's Degree or an equivalent degree of a foreign University in the subject concerned.

Note: Initial appointment will be for a tenure period of three years extendable by another two years only. **In no case the tenure will extend beyond 5 years in all.**

**Medical Officer**

M.B.B.S. degree from a recognised University—minimum experience of 3 years after completion of internship required. Candidates with post-graduate qualifications or hospital experience will be preferred.

**Part-time Medical Officer**

M.B.B.S. degree with at least 3 years' experience after internship.

**Nurse**

Diploma in General Nursing and Midwifery from recognised University or Institution and registered as 'A' Grade Nurse.

**Technical Assistant**

Graduate in Science. Experience in Laboratory Techniques of the subject.

**Senior Laboratory Assistant**

1. Higher Secondary or equivalent Examination with Science subjects.
2. 5 years experience as Junior Lab. Assistant in an Anthropological Laboratory.

**Key Punch Operator**

Higher Secondary / Matriculation. Experience in operating a Electric Key Punching Machine (Numerical & Alphanumerical) and knowledge of handling Computer Input/Output work.

**Garden Coolie**

Conversant in Gardening methods.

## SPECIAL / DESIRABLE QUALIFICATIONS FOR

**Professorship in Mathematical Economics**

Mathematical Treatment of Economic Theories.

**Professorships in Economics**

(a) **For first post: Area Studies.** The Professor appointed in this post, in addition to his normal duties in the department will be expected to supervise research work in Area Studies (Pakistan and/or Bangladesh Economy).

(b) **For second post**: Preference will be given to a scholar who has specialization in Economic Theory, International Economics or Monetary Economics.

**Readership in Botany** (for 2 posts)

Training & experience of research in interdisciplinary areas.

**Readership in Sanskrit**: (South Delhi Campus)

(i) Grammar & Linguistics, (ii) Prakrit & Jainism, (iii) Veda and (iv) Dharmasastra.

**Lecutreship in Gajarati**

(i) Specialisation in Modern Gujarati Literature,
(ii) Desirable:
(a) A good knowledge of Sanskrit/Linguistics/Hindi/English.
(b) Should have experience of teaching at B.A. (Hons.) level at least for 5 years.

**Part-time Medical Officer**

**Desirable**

(a) Experience of working in a hospital after graduation.
(b) Post-graduate qualifications.

**Nurse**

2 years' experience of ward-duty in General Hospital.

**Garden Coolie**

Experience of looking after plants grown for research and teaching purpose.

The prescribed application form can be had from the Information Section of the University either personally or by sending a self addressed envelope (size 13 cm x 28 cm.), with postage stamps worth Rs. 2.90.

The candidates will have to produce the original documents relating to their age, qualification, experience, etc. at the time of interview.

Applications **(separate for each post)** accompanied by attested copies of Degrees, other certificates, marksheets published research articles, etc., should reach the undersigned not later than **25th October, 1980**.

Note:

1. It will be open to the University to consider the names of suitable candidates for teaching posts who may not have applied. Relaxation of any of the qualifications may be made in exceptional cases, in respect of all teaching posts on the recommendation of the Selection Committee.
2. Canvassing in any form by or on behalf of the candidates will disqualify.
3. Candidates from outside Delhi, for teaching posts only, called for interview will be paid to and fro single second class rail fare.
4. The University reserves the right not to fill up any of the vacancies advertised if the circumstances so warrant.

**REGISTRAR**

MANAGEMENT
EDUCATIONAL
SALES TRAINING
MEDICAL AND
ENTERTAINMENT
FILMS

NOW AVAILABLE IN

SUPER 8mm

COLOR AND SOUND

Here is a wealth of stimulating innovative films designed to complement and enrich your media programs. We look forward to assisting you.

**PDR**
**COMMUNICATIONS**
342 KALBADEVI,
BOMBAY 400 002
PHONES: 314774-456894

**ALSO AVAILABLE**
Above Films in 16 mm, PDR Super 8 Sound Projector and Duplicating of Super 8 films.

SHASHIS/274

# D.K. Publishers' Distributors

**1, Ansari Road, Daryaganj,**
**New Delhi-110002**

— Archaeology of Soviet Central Asia and the Indian Borderlands, in 2 Vols;

—**S.P. Gupta** 1979, (Set) Rs 40.00

— Archaeological Survey in Saurashtra; —**G.L. Possehl.** In Press.

— Art and Archaeology of Himachal Pradesh—**Mian Goverdhan Singh.** In Press.

— Art of India and Persia—**Anis Farroqi**, 1980 Rs. 300

— Aspects of Indian History & Archaeology, (History & Archaeology Series, Vol. 4); — **H.D. Sankalia**, (Ed. Gupta & Ramachandran) 1977. Rs. 160.

— Aspects of Medieval Indian Society & Culture—**P.N. Ojha**, 1978 Rs. 50

— Benares: The Sacred City of the Hindus—**M.A. Sherring**, 1975 Rs. 80

— BEPI—1976. A Bib. of English Pub. in india, Rs. 150

— BEPI—1977. A Bib. of English Pub. in India. Rs. 150/-

— BEPI—1978. A Bib. of English Pub. in India. Rs. 150

— Between Sikkim and Bhutan—**Indira Awasty**, 1978 Rs. 40

— Bias in Indian Historiography —**Devahuti.** 1980 Rs. 150

— Born for Archaeology: An Autobiography—**H.D. Sankalia.** 1978 Rs. 40

— The Buxas of the Tarai—**Amir Hasan.** 1979 Rs. 75

— Caste : Identity and Continuity—**V.C. Chanma.** 1979 Rs. 45

— The Chamars—**G.W. Briggs.** 1975. Rs. 40

— Chittoor Through the Ages—**Sampath.** 1980. Rs. 150

— The Concept of Avatars; with special reference to gita—**R. K. Panday.** 1979. Rs. 35

— The Dibonigiyas—**P.C. Saikia.** 1976. Rs. 35

— The Domiciled Hindus—**Diwan Jamiat Rai.** 1974 Rs. 20

— Economic & Change in Less Developed Countries—**David Colman, Fredrick Nixon.** 1980 Rs. 125

— Economic and Geography of Agricultural Land Reclamation—**A.L. Singh.** 1978. Rs. 90

— The Economy of Human Resources **V.P. Batra.** 1978. Rs. 70

— The Emergence of Culture in Europe —**D.K. Bhattacharya.** 1978. Rs 50

— Essays in Indian Protohistory, (History & Archaeology Series. Vol. 5)— **(Ed. D.P. Agrawal & Dilip K. Chakrabarti).** 1979. Rs. 200

— Family and Marriage—**N. K. Kedetotad.** 1979 Rs. 40

— Foreseeing the Future—**H. Winthrop.** 1978. Rs. 40

— Geomorphology and pre-history of South India — **V. Sudarsen.** Rs. 65

— The Hindu at Home—**J.E. Padfield.** 1975. Rs. 75

— The Heritage of India—**Upendra Thakur, Y.K. Mishra.** 1978 Rs. 195

— History and Archaeology of India's Contracts with other Countries —**S. Asthana.** 1976. Rs. 125

— History and society—**R.H. Tawney.** 1979. Rs. 120

— History of the Boondelas—**W. R. Pogson.** 1974. Rs. 80

— Idea of Ideas—**V.P. Verma.** 1977. Rs. 40

— An Index of Songs in Carnatic Music—**Gowri Kuppuswamy & M. Hariharan.** In Press.

— India and its Native Princes—**Louis Rousselet.** 1975. Rs. 175

— India and South East Asia, (History & Archaeology Series, Vol. 6)—**R.C. Majumdar. (Ed. K.S. Ramachandran, S.P. Gupta).** 1979. Rs. 55

— Indian Nationalism and Asia—**Birendra Prasad.** 1979. Rs. 80

— Issues and Choices in Higher Education—**K. Gandhi.** 1977. Rs. 55

— Krsna Saga in Laos—**S. Sahai.** 1978. Rs. 75

— Kurukshetra-Political and Cultural History—**Balkrishna Muztar.** 1978. Rs. 60

— The Land of Vishnu—**G. Mohatpatra.** 1979. Rs. 150

— Libraries in Delhi—**S.K. Bhatia.** 1979. Rs. 25

— Mahatma Gandhi—A Contemporary Perspectives—**A. Bose.** 1977. Rs. 25

— Man Education and Values—**K.N.V. Reddy.** 1979. Rs. 50

— The Meitheis—**T.C. Hodson**, 1975. Rs. 45

— Modern Hinduism—**W.J. Wikins.** 1975. Rs. 60

— Modernization of the Hindu Socio-Culture —**A. Jha.** 1978. Rs. 40

— Monetary Policy and Inflation in India—**C.S. Nagpal.** In Press.

— Naga Polity—**M. Horam.** 1975. Rs 50

— 19th Century English Literary works —**M. Husan.** 1978. Rs. 80

— The Opera of South India—**S.A.K. Durga.**

— The Origin Rise o. Consolidation of the Indian States; 1975. Rs. 25

— The Origin of Brahmi Script—**Ed. S.P. Gupta, K.S. Ramachandran.** 1979. Rs. 50

— Punjab Castes—**D. Ibbetson.** 1974. Rs. 80

— Problems of Indian Historiography —**Devahuti.** 1979. Rs. 50

— Public Co-operation in Social Defence—**S.P. Srivastava.** In Press.

— The Ramayana in Laos—**S. Sahai.** 1976. Rs. 75

— Readings in Political History of India; (History & Archaeology Series Vol. 1)—**R.C. Majumdar Ed. S.P. Gupta).** 1976. Rs. 85

— Readings in South Indian History— —**T.V. Mahalingam (Ed. S.P. Gupta & K.S. Ramachandran).** 1976. Rs. 60

— Readings on Music and Dance—**Gowri Kuppuswamy & M. Hariharan.** 1979. Rs. 90

— Roots of Indian Art—**S.P. Gupta.** Rs. 500

— Rural Industrialisation in India—**S.N. Bhattacharya.** In Press.

— The Sarvangi of Dadupanthi Rajab —**W. Calleweart.** 1978. Rs. 60

— Self-Reliance and Foreign Aid to India—**M.M. Tewari.** In Press.

— Sex-Offences in India and Abroad; A Sociological Study—**Paripurnanand Verma.** 1979. Rs. 50

— Sir Chhotu Ram—**Madan Gopal.** 1978. Rs. 40

— Social and Cultural Life of Nagas —**M. Horam.** 1977. Rs. 40

— Social Change in Rural India—**A.B. Hiramani.** 1977. Rs. 70

— Social & Economic Profile of North-east India—**Ed. B.D. Ray.** 1979. Rs. 70

— Socio-Economic Exploration of Medieval India **P.C. Jain.** 1976. Rs. 80

— Socio-Economic and Political History of Eastern India—**Y.K. Mishra.** 1977. Rs. 50

— Socio-Economic Life in Chotanagpur—**B.P. Sinha.** 1979. Rs. 50

— Sociology of Thought—**V.P. Verma.** 1977. Rs. 40

— Society, Polity and Economy—**D.K. Biswas.** 1979. Rs. 55

— Status of Muslim Women in North India—**Shibani Roy.** 1979. Rs. 100

— Studies in History of Buddhism— —**A.K. Narain.** 1979. Rs. 180.

— Studies in Pali and Buddhism: A Homage Volume to the Memory of Bhikhu Jagdish Kashyap —**Ed. A.K. Narain.** 1979. Rs. 180

— Tribal Culture in Flux— **R.N. Pareek** 1977. Rs. 80

— Udayagiri & Khandagiri Caves in Orissa—**Ramesh Prasad.** Rs. 300

— U.S. Policy Towards India and Pakistan—**R.C. Gupta.** 1977. Rs. 40

— The Village in the Jungle—**Leonard Woolf.** 1975. Rs. 50

— The Wild Tribes of India—**H.B. Rowney.** 1974. Rs. 45

— The Wonders of Elora—**John B. Seely.** 1975. Rs. 90

UNIVERSITY NEWS, OCTOBER 1, 1980. **Regd. No R.N. 7180/62 Postal Regd. No. D(C)-534**

## SOME OF OUR RECENT RELEASES

**NEW UNESCO SOURCE BOOK FOR SCIENCE TEACHING** Rs. 20.00

The book is intended to serve as a source of ideas for devising simple scientific activities and experiments. It reflects modern approaches to science teaching at the elementary and lower-secondary level.

**INDIAN CONSTITUTIONAL AMENDMENTS**
**Paras Diwan** Rs. 60.00

*This book will be of immense help to lawyers, law students and anyone who is interested in the* Indian Constitutional Amendments.

**MODERN INTERNATIONAL LAW**
**R.C. Hingorani** Rs. 75.00

The book is unique in many aspects and fulfils its primary task of reflecting Afro-Asian *aspirations on the subject.*

**STUDIES IN INTERNATIONAL LAW**
**R.C. Hingorani** Rs. 60.00

This book should be of tremendous interest to exponents of International Law. It also makes excellent reading for general readers and intellectuals interested in the turn of events in the world today.

**ROGET'S INTERNATIONAL THESAURUS (Third Edition)** Rs. 35.00

A comprehensive *treasury of almost 250,000 words and phrases, grouped by ideas.*

**COLLINS CONCISE ENCYCLOPEDIA** Rs. 40.00

This encyclopedia will provide in one volume a source of every day reference, easy to handle and consult, whether in study or library, office or home.

***COMPLETE WORKS OF SHAKESPEARE*** Rs. 35.00

**EDUCATION AND COMMUNICATION FOR DEVELOPMENT**
**O.P. Dahama & O.P. Bhatnagar** Rs. 46.50

This book with its lucid description and rich contents at all levels, professionals, research workers as well as trainers of field workers in the interdisciplinary and multidisciplinary social behavioural sciences.

**OXFORD & IBH PUBLISHING CO.**

NEW DELHI BOMBAY CALCUTTA

Printed & Published by ANJNI KUMAR, on behalf of the Association of Indian Universities (formerly known as Inter-University Board of India), Rouse Avenue, New Delhi - 110002
Grams : UNIBOARD. Phone : 276504 and 273037. Printed at NEW INDIA PRESS, NEW DELHI-1